

We're All Gonna DIE!

(Mortality As an Ally)

by

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Introduction: Famous Last Words

Are you one of those people who have a hard time saying goodbye? Almost nobody is good at it. You know the drill. You're at a dinner party. Most of the guests are still going strong, but you're getting a little tired, so the better part of wisdom is to call it a night. What do you say? You've got an early day tomorrow (modest fib). You had a really long day already. (What day isn't?) You've got a touch of yellow fever? Take your pick. It's hard to feel completely at ease. For some reason, arriving always seems easier than leaving. Go figure! When you arrive, you actually have to be doing something in public, like behaving yourself and remembering your manners. When you leave, the job's done.

The whole ordeal only becomes more difficult when you ramp up significance. Bringing your neighbor a piece of mis-delivered mail is usually not a big deal. Embarking on a trip for a month, the stakes rise. Moving across country, a last get-together starts to seem almost tragic. What do you finally say?

We all, probably, have our own version of some especially grand exit strategy, some variation on the hero's valiant sacrifice or the private ride off into the sunset. Whatever it is, the adolescent version of signing off always has a concise and dramatic closure to it, or at least that is how it is imagined. These days, truth be told, as I look around and see the young people I teach glued to their cell phones, or checking in on their social networking sites of choice, I wonder if they will ever get to have the radical and transformative experience of leaving something behind and laying claim to a new path that would give them a rich and varied life story from which to compose a final narrative.

When much younger, I had my own idea of a storied ending. As a student of physics, I first heard the tale of the French mathematician Evariste Galois. It doesn't matter whether the story was faithful to the facts, and it is easy enough to verify, but this is what I was told by a fellow student. By age twenty, Galois was a mathematical prodigy, though with hardly enough time lived to have become widely recognized. He fell tragically in love, and, against his wishes, he found himself committed to a pistol duel with a rival for his beloved. Knowing that he would die come morning, he spent his last night feverishly writing out profound mathematical conjectures, forming the basis for much of what would become the modern field of abstract algebra. As he had insufficient time to write both the conjectures and their proofs, more than a century would pass before the world's leading mathematicians would prove what the young Galois simply knew, intuitively. Top that for an epic exit to one's mortality! Well, I guess you had to be there. The idea of living out an extended existence of mixed success and effort doesn't script well when you are a callow youth, but life experience teaches that cinematic departures belong to cinema.

Are these the musings of an old fart bemoaning the state of youth these days? What is attractive about attenuating one's hopes by looking in the rearview mirror? And who knows, perhaps the things that appear as dependable truths with age and experience, life's verities, are, in the larger scheme of things, passing fashions. Considering this generational shift, perhaps much of what inspired this book is, by its very nature, antiquarian. I may never know. But humor me for a bit.

Famous last words, particularly befitting that one journey we each will take (without Twitter) have always been either overrated or, more honestly, dealt with sardonically. Despite the fact that, yes, the prospect

of the gallows at dawn tends to focus one's mind marvelously, no one bit of final soliloquy transforms the quotidian into timeless elegance.

We're all leaving, but few of us will get the opportunity for our final, perfectly directed and scripted, close-up farewell. There isn't any good reason to expect that the sorts of things we will do in our closing scene will be profoundly different from the kinds of things we have already done. What will be will be, and if billions of other individual lives are any guide, what will be is closely related to what has already happened. Your greatest hits don't all get selected from the last take, but they are culled from the repertoire of things you are already doing. In other words, this stuff you are doing, right now, adds up, over time, to compose a life.

It may not be popular to say so, but most of what happens to us comes under the heading of everyday existence, and it is a really good idea not to hate it. Goals are fine, but they are not everything. Despite what all those life advisors may say about failing to plan is planning to fail, living one's life in that mindset is like being caught in a never-ending emergency.

Of course, this isn't rocket science. It's better than rocket science (even though rocket science is pretty nifty). Yet, as engaging and rewarding, as challenging and sufficient as the matters of mortality ought to be when just attending to what is presented, it is astonishing how many ways we seek to distract ourselves from thoughts and activities that have any lasting satisfaction.

As my then seven-year old daughter liked to say, "And your point is?" So here it is: all the *distractions* in life that diminish your awareness of what we are doing during the stretch between birth and death – those distractions are *not* our allies. They leave us selling off the only

thing we have by virtue of being here: a mortal experience. And that, pretty much, is what the rest of this short book is about.

To avoid confusion, the word *mortality* is NOT meant as a reference ONLY to the event of dying. Rather, mortality is intended to illuminate a common sense of finitude. That awareness is crucial, for without it nothing sensible can be said. Once that particular demarcation is accepted, we can read back from it, gaining useful insights and graceful wisdoms on the lived experience that precedes it.

The book doesn't pretend to announce the one correct way to live life in all its detail. How could anyone ever presume to know all the ways to compose and live a worthwhile life? Existence would be pretty thin gruel if it were some simple formula, and everybody's job was to get that one recipe right. These pages are a collection of thoughts on some attitudes and inclinations that seem useful in generating gratitude and fulfillment toward one's mortal opportunity, as well as some observations about practices that seem likely to lead *away* from generativity and satisfaction. Each chapter explores an aspect of our mortalities that we can use to inform our intentionalities and our conscious awareness.

Consider this. If most of us, by virtue of logical necessity, are going to live out our lives fundamentally anonymous to all but a few who know us personally, what would constitute a good story of our mortality? What would you like to have as your obituary? What would be a tidy summation that, if you were to read it, you might respond by saying, "This is pretty good. I can take ownership of this." It's worth pondering because if you can decide on that (possible) story at some point before it is over, then the rest becomes much more satisfying and meaningful.

Personally, I have long had a preference for the late Kurt Vonnegut's admonition: "Dammit! You just gotta be kind." And I promise the reader one thing. I may seem irreverent at times, but I do have a certain need to indulge in humor and that includes being able to make myself chuckle. However, it is one thing to be occasionally sardonic. It is another thing to be a cynic. I promise not to be a cynic.

So, let's be specific about the ubiquity and depth of the challenges we face if we are to make our very mortality our greatest ally. When examined carefully, it seems that nearly every aspect of modern living is exquisitely designed to remove us from our own mortality and, in the end, leave us with nothing. We are seduced to spend our money, time and effort on every nostrum to keep us (physically) forever young, and then to depend upon others recognizing our beauty and fitness to alleviate our anxieties. We are hectored to believe that the more we have, the more we express our inherent worth to others and ourselves. This has recently taken a more sinister and tragic trajectory than was ever possible with the *merely* materialist culture of the twentieth century. Now we no longer only pack our garages, living rooms and attics with baubles and trophies, but we also account our worth by stockpiling virtual friends who exist only as concepts, sending and receiving endless messages in electronic bottles, ultimately of no more substance than our ring-tones.

We ardently believe that there are ways to secure ourselves against any sort of ruin, keeping our economic obsolescence forever at bay. Toward this end we seek a college education not because it is simply wonderful to learn all we can, but rather as an emblem of our pedigree. We seek associations of tactical and strategic advantage in our careers less because the work satisfies our sense of purpose than because these connections provide the possibility of future advancement of salary and

prestige. We seek out mentors not for their wisdom, but for their connections and name recognition. And if worse comes to worst, and we confront unemployment, or bankruptcy, or any sort of financial crisis, well, that is why we have insurance against any possible life contingency, and we worry over the adequacy of all our bulwarks against catastrophe as though that very nervous attention were a large part of our monthly premium. If there is one disguised blessing in the recent economic maelstrom, perhaps it is in revealing the utter despair that comes from this grasping at chaff.

Reading this last bit of contemporary living backward, we can see that we are entrained to consider some of the most precious aspects of a truly blessed life, such as one's educational adventures and even one's friendships and associations, as merely other versions of *indemnity*. Holding our mortality at bay is such an exhausting business! Much more exhausting than actually living it, for certain. The project many people are mostly involved in has the feel of the Army Corps of Engineers trying to hold back the Mississippi, or stacking up sand dunes against beach erosion. There are so many ways to be distracted from a central, and most exquisite, truth: we are all mortal. Understood properly, there may be no other single fact more instructive for fostering richness, meaning, and gratitude in living.

Famous last words? Perhaps we would do better, as a culture, giving all our young people some famous beginning words, as they head out into the world and their own futures:

Do not seek death. Death will find you. But seek the road which makes death a fulfillment.

~ Dag Hammarskjold

Chapter 1: Categorical Catastrophe

Mark Twain once said that the difference between the right word and almost the right word is like the difference between lightning and lightning bug. Having grown up in New Jersey, I have fond memories of lightning bugs even though I have a hard time feeling soft and fuzzy about the insect world, generally. Of course, all life on this planet would collapse were it not for the insects. Still, when out in the backyard, I usually don't have that singular fascination that some do. I listened to an entomologist once, who, as a youngster, would put his head right down in the dirt and construct the social roles of ants on the spot through several hours of patient observation. I find beetles a bit more interesting to watch, but no other insect really generates an affectionate response in me like lightning bugs. A personal weakness of inter-species empathy, certainly.

On most summer evenings of my childhood, right around twilight, the air would suddenly become illuminated by thousands of tiny, golden blinking spots. They didn't fly quickly, and they stayed fairly close to the ground, so they were easy to catch by hand. Once caught, they would crawl around lazily on your skin for a few seconds, brushing you lightly and curiously with their antennae, blinking a few times before flying off. They didn't bite or sting. I remember putting my eye up as close as I could to their light-emitting undersides, trying to see if I could figure out where the light was coming from. And, like I'm sure lots of kids did at one time or another, I remember catching as many as I could and putting them in a Mason Jar to have a really exotic night light. It turns out they don't do so well in a closed jar. Then again, if you get curious and open the Mason Jar in your bedroom for a closer look, you probably

won't get them back. I have also had a few close encounters with actual lightning over the course of my life, and I can most definitely report that the experience has nothing in common with holding a lightning bug.

So, one must take care to use the right word when trying to get a point across, particularly if it is important that your conversational partner understand, as closely as possible, what your original experience was, or what you feel about the idea you are trying to convey. However, it has become obvious to me that the problem of choosing the right word or phrase is not that of locating a fixed target. This difficulty is especially obvious when referring to political or social categories.

One of my fields of study in graduate school was American cultural history. I recall one book that purported to be a history of liberalism in American democracy. I looked forward to reading it since I already knew something about the rise of the Progressive Movement, how it was connected to industrialization, and how government utilized the new research universities to form expert panels for things like the reform of urban areas and the development of safety and health regulations. I was hoping to see how far back the origins of this reform movement went.

To my surprise, this wasn't the subject of the treatise at all. Instead, the book discussed "natural law," the Romantic Movement in American mythology and politics, and the siren call of the new American Adam making his errand into the wilderness. This wasn't liberalism in any sense that we have commonly used that term for most of a century. This was all about, instead, what we now call *libertarianism*. Now that is a perfectly valid subject in cultural history,

but I felt really used and abused by the author for not making this distinction, neither in the title nor in the rest of the book.

So, where is this headed? Well, for the record (and whether or not it matters), I am not a strict positivist or materialist. It seems to me that there is more going on in life than can be accounted for by strict cause and effect in the physical world. Still, even with this instinct to recognize a transcendent nature to our mortal experience, I should like to stay with concepts that are open to common experience and examination in these pages. Whatever may comprise transcendent reality, it is not easily translated into ordinary language used to communicate about common things and experiences. Furthermore, if there is a reality more fundamental than the one we experience in everyday life, how could it be defined as though it had one objective aspect to it? If you experience some taste of awe and mystery, of elation or sublime tranquility, or whatever it may be that may lead to an apprehension of existence beyond the ego-self, how could you presume to know that either the causes or effects of this state are the same for anyone else? The best you can hope for is that there may be certain activities and pathways that more often than not allow each of us to experience the world and our lives in more profound ways than we normally do. On the other hand, there may be practices and pathways that more often than not seem to *disincline* us from perceiving ourselves and others, as well as the world around us, in any way *other* than the practical and objectifying perception we use to survive and gain material advantage.

This is a long way around to explain that my preferred term for apprehending the world *used* to be the word “spiritual.” Note that I employ the past tense, but this is a rather recent development, and one that calls for some adjustment. The fact is that “spiritual,” not unlike

those ambiguous and context-dependent terms for political and cultural factions discussed above, may not be useful any longer in describing any particular state of consciousness that is well-understood or commonly experienced.

My own rude awakening came recently when talking with my brother-in-law, a physician at a major research hospital on the East Coast. He and his family were visiting us, and I was doing a big barbeque for dinner. Taylor and I were out in the side yard talking, and I must have slipped that word, “spiritual,” into the conversation somehow. Taylor stopped me on the spot. What, exactly, did I mean by that word?

I was a bit surprised because he seemed so insistent. And I wasn’t fully prepared with an answer. So I gave some partial answers that didn’t satisfy him or me. He responded that he wanted to know because that word, “spiritual,” was cropping up in medical circles, and he didn’t know what to make of it. In fact, he said, “As you know, I run the I.C.U. (intensive care unit), and, understandably, there is a lot of mortality in that division. And right now, there are a lot of grants and funding possibilities for designing into such programs, something called ‘spiritually competent counseling.’ I don’t know what they’re talking about.”

I’m a bit embarrassed to admit that, rather than taking a breath and considering what my brother-in-law had said, I tried to come up with a ready answer. Immediately, what began racing through my mind were all sorts of versions of what these foundation representatives might be talking about, giving them, without having spoken to them, the benefit of all doubt. Okay, so there must be a felt need out there that the mechanics of medical technology and expertise are not enough. These patients, quite possibly, are going to die, and a lot of them are having

some sort of existential crisis that is causing them to panic. What can a medical doctor do? On the other hand, what can a member of the clergy do? Suppose the patient is not of that particular religion? Perhaps they are not religious at all, so talking to an ordained counselor of any faith is not going to help. What they need is a philosopher! But nothing post-modern, that's for sure.

All this was charging through my mind as though I, personally, were in the line of fire, and I had to come up with an answer STAT! So, I did what lots of people do when they fail to realize that they can ask for a time-out. I punted. "Well, Taylor, I see what the problem is. I'm not sure I can tell you what the answer is or, in other words, what is meant by 'spiritual,' in the phrase 'spiritually competent counseling,' but I think I could put you in touch with some other research groups who could tell you."

"No," he insisted, "I'm asking you. What do *you* mean by it?"

At that point, two things happened. The first realization was something new to me. I had been using this term ("spiritual") in ways I thought judicious. I wouldn't flagrantly throw it around, but I would feel comfortable using it occasionally, to indicate a certain worldview, more of an inclination than anything else, to distinguish a way of approaching one's work, one's relationship with the world, and especially one's stance toward one's fellow humans. I would use the term mainly in *opposition* to a stance that saw everything as material, to be operated on for one's own advantage as though that were the only recognizable value: what's in it for me. I would also use the term in *opposition* to the word religious although that need not be the case. And, in the company of people where I was most likely to use the term, I assumed, through the importunings of my own human empathy, that everyone else knew what I was talking about, that they had experienced

the same internal states of feeling and consciousness as I had when I felt that life, and the cosmos, were somehow much more profound and subtle than I could describe in words.

Suddenly, it dawned upon me that the word “spiritual” could become a term of art, or even worse, an industry buzzword, and that the people using it might have no internal feeling-state about it at all. They were simply clever enough to know that this was the phrase *du jour*. In a 1999 essay called “In Distrust of Movements”, Wendell Berry makes clear this danger of weakening language. “Once we allow our language to mean anything that anybody wants it to mean, it becomes impossible to mean what we say. When ‘homemade’ ceases to mean neither more nor less than ‘made at home,’ then it means anything, which is to say that it means nothing.”

The second realization came through the disjuncture of the terms Taylor’s potential funders joined. Considering “spiritual” and “competence” together is like receiving a slap in the face. It is a bit as though one had been conversing about a friend long-gone, recounting what you remember of his finer points, when suddenly your reminiscing is interrupted by a stranger who says, “I knew that guy! Didn’t you know? He was a total fraud. He never did anything without calculating what was in it for himself.” For, by my estimation, spirituality and competence don’t even intersect. They are from different worlds, different dimensions. Competence sounds like being able to do some task efficiently, with alacrity. Like finding information on the Internet, or knowing how to remove a stain using lemon juice. There’s nothing wrong with those things, and one might even get a certain amount of personal satisfaction by doing them. But how could anything mundane and operational like that be connected with being overwhelmed by a rapturous reflection of anything beyond one’s own controlled

environment? By putting those two words together, “spiritual” and “competence,” one may as well put any two words together, like “furry water,” or “salty ceramics.” These compounds can mean anything at all, which is to say they mean nothing.

For this reason, at least for the remainder of this little book, I will bid farewell to the use of the word “spiritual.” I will also try to avoid other terms that may have become diluted by being used in ways that are not intended. I will illustrate ideas by referring to events and reactions for which there is reasonable certainty that they won’t be mistaken for something else within familiar human experience.¹

Before leaving the term for good, however, it does bear mentioning that I did offer a definition of “spiritual” to my brother-in-law in the conversation described above. Or rather, I described a mental and emotional attitude that leads to the kind of perception I was in the habit of calling “spiritual.” This is an inclination of mind that has two inseparable aspects: mindfulness and gratitude. For me, the resulting perception finds value beyond the material, and meaning and purpose beyond the realm of mere cause and effect.

By mindfulness, I mean the idea of conscious attention, which is to say attending to the fullness of what is presented to you, and yes, it is

¹ For those interested in a most useful and elegant discussion of ways one might consider such human inclinations of both spirituality and religious persuasion in the modern and postmodern worlds, I would highly recommend the short essay by philosopher Jaron Lanier (*Jaron’s World*), in the September, 2007 issue of *Discover Magazine*.

quite Buddhist, and doubtless familiar to many readers. I will use this concept intently and deliberately in the chapters to come.²

Once one is truly awake to the experience of what is occurring right now, it is but a short turn of awareness, I find, to become deeply grateful for those experiences. When I mention this connection to students, they have sometimes posed the question, “Well, to whom are you grateful? Do you mean God?”

This, however, presupposes that gratitude occurs in the same kind of zero-sum “flatland” that we are taught, through our culture and education, is the where and how of all interactions. Thank “you,” we are taught to say, when some ONE, outside of ourselves, gives US some THING. Is it possible to be suffused by a feeling-state of gratitude, without knowing to whom you are extending thanks? Why is that unreasonable? And yet, it has been necessary, at times, to amplify and exemplify the idea in order for twenty-somethings to catch on. The example I use is one that, while not uncommon, is also not universal. Still, when stating it, this seems to help them recall something similar from their own lives. The particular experience is from parenthood.

I came to parenthood rather late in life. When we were 47, my wife and I had twins. To be sure, these kids are active, willful, and they can try our patience. However, I would be lying if I didn’t say that by far the overarching way I perceive their presence in the world and in our lives is just love. There are moments when, from no particular prompting at all, I look at one or the other of them, or sometimes I’m at work and I imagine them, and I am overcome with gratitude. It kind of

² If you wish to know more about practical ways to accomplish this state of attention, I would recommend any of the short and straightforward books by the Buddhist teacher and writer, Thich Nhat Hahn, but particularly *Peace is Every Step*.

takes my breath away. Why? Did they do something good at school, or did they give me a gift they had fashioned? (After all, just a few years ago my daughter found it necessary to explain parental love in those very terms.) No. I love them because they exist. Ain't no *quid pro quo* about it.

It is impossible to be suffused with gratitude concerning anything at all if you are not first fully aware, intently conscious. But once you are fully awake to almost anything, and certainly to anything that comes with the normal processes of everyday living, it is but a short step to being grateful that you are alive, and this allows you to be more exquisitely aware of the process whereby gratitude intensifies existence. Does that seem sensible? If so, let's continue our investigation.

Chapter 2: Mono-Tasking

Consider the following situation. You have come home from work, and it was a trying day. Your co-workers seemed to be on edge, jumping to conclusions and often misreading your light-hearted comments. This isn't the way the workweek should start out. You get your mail. There are some bills you don't want to open and a letter from your doctor's office that you're even less inclined to open. You can't seem to get yourself out of the funk. Instead, you keep rehearsing trivial annoyances from the day gone by and worrying about the future. This is a deadly combination: you can't do anything about the past, and you haven't arrived in the future. Suddenly, the doorbell rings. You clench up momentarily. The only thought that races through your mind is "Oh, no. What did I do this time?"

Opening the door, you are greeted by an old friend you haven't seen in two years. Immediately, you are smiling. "How long can you stay?" you ask.

"I can stay for about an hour," your pal says, "but then I really have to hit the road. I was close by for a business meeting that went a little late. I feel bad that time has slipped by, and we haven't gotten together."

"Have a seat," you tell her, and you get two glasses of wine. You sit down, and...the phone rings. What do you do?

Congratulations! You passed the test. After all, you did say that you unplugged the phone, right? No? Oh, too bad. You've just failed at "This Is Your Life!" What were you thinking? Here comes a friend, someone you really like but haven't gotten around to seeing. Hey, we all lead hectic lives. Apparently, it happened to your friend as well. Nonetheless, she showed up out of the blue, and you had news and stories to share.

She moved your mind out of useless spinning, and she was ready to launch a memorable conversation. Perhaps she was going to lead off with news of a chance encounter with a mutual friend. Perhaps she was going to ask for your help with a difficulty, giving you a chance to stand by her. What could be better than that? Or, she might have steered you to a new, unforeseen opportunity. Or this could have just been a blessed interlude from your own worries, the sort of mini-vacations that make life sweet. But you answered the phone instead. And, no, it didn't particularly make things better if you made an apologetic motion like raising your finger and saying, "Okay, hold that thought." No, you squandered the opportunity to make your friend, and the moment, stand out as even more memorable by saying that right now, *nothing* was more important than talking with her, face to face.

The fact is that researchers are often dubious about the claims we post-modern workers make about our ability to multi-task. Granted, there seems to be some acceptance for the notion that separate processing pathways exist in the brain, so that it is possible to do things like chew gum and catch a fly ball at the same time. Perhaps when your spouse tells you what to get from the store, you can create a mental shopping list and delete unwanted email. Text messaging in the middle of a downhill ski run, much less advisable. Cell-phone chatting while performing heart surgery, now you're asking for trouble. Regardless of whether or not you say you can perform any of these tasks simultaneously, doing any of them while pretending to give your attention to another individual is demeaning to that person.

As long as we only engage in the argument about whether multi-tasking is good or bad, about whether we can get away with it (and, besides, its nobody else's business based upon criteria of whether it makes us more productive, or if it lets me fit more into my busy

schedule, or it allows me to have this great salary), we are missing the point. Any of those arguments are only structured to permit us to keep doing what we are already doing without reflection.

But let's be honest. Even setting aside questions of respect for others, it is difficult to find current research that posits any significant benefit to multi-tasking. Research is piling up about the profoundly deleterious effects of this mental equivalent of drive-through fast food. Everything we would consider important in our lives is infected: our relationships, our families, our creativity, our patience, our appetites, and our health. If you want proof, try looking up information on these recent areas of investigation, known variously as cognitive overload, attention deficit tendency, or acquired attention deficit disorder.

Why do we indulge in these hazardous practices if they hollow out the experience of our lives and loves? The answer is, quite bluntly, for the same reason we smoke cigarettes or use other highly addictive substances: they give us a jolt of adrenaline and a quick shot of pleasure-inducing neurotransmitters.

Sure, if *your* best friend insists on being able to interrupt your conversation when a phone rings, you feel hurt and insulted. So, what do you do? When she is talking to you, if your phone rings, you answer it. That'll show her. You're no slave to her friendship. You are as important to the outside world as she is. Well, it isn't hard to see where that ends up. In short order no one can trust that anyone is attending to him or her rather than constantly trolling for the best offer to come in, which is always something yet to come, never where you are.

Here is a simple test to give yourself. If you can pass this test, I would have nothing to say, except bully for you. The test is this: do you remember anything from a randomly selected day of last week? You will only remember conversations, letters, information, sensations,

stimuli, a book, *anything*, if you are *paying attention at the time*. If you can't remember it, it may as well not have happened in the first place. You weren't paying attention. You weren't conscious of what was happening.

Do you think this claim is fair? Is it acceptable to consider that, so far as the composition of our own life narrative is concerned, if events transpire without our conscious recognition and recollection of them, we are functionally *dead* to those events? If you have difficulty agreeing to this assertion, I would certainly respect your disinclination, so take care in answering. After all, following this line of logic to its brutal conclusion just might solve issues that society has wrestled with for a long time, and for which we have been unable to reach culture-wide consensus. This could give a final answer to those knotty issues about life and death (including the disposition of such medical states as irreversible coma), and I cannot claim to have insight into such issues that has escaped everyone else.

In fact, we might consider the connection between conscious awareness and the meaning of life to be the most ancient, perennial existential question we can identify. We find the relationship explored in creation myths as well as being central to Sophocles, Plato, and most other philosophy and art up to the present day. So, even if we cannot claim to have solved, for once and for all, the problem of conscious awareness and memory and their roles in giving meaning and intensity to human mortality, can we at least posit that awareness and memory are so fundamental we dare not voluntarily discard them or neglect to nurture them, lest they truly turn out to be the main event?

Now, ask yourself this: how many vivid, replayable, experiences can you recall from last week, or last year? Do those memories of an ordinary and random week of your life, the recalling and thinking

about them, reliving them, distilling some wisdom from them, telling stories about them, does all of that put together count remotely equivalent to the time expended while all of that went on? Again, we are considering an ordinary week, not the one time when everything was illuminated during that time by a once-in-a-lifetime occurrence, either fortuitous or tragic. If it is, instead, all so much static and lost time when trying to recall in any detail the experiences of every day in an average week, what did you get in return? Was it worth it, in terms of, for example, the equivalent fraction of your life that is gone, even in the rosiest forecast of your longevity?

Nobody can tell you how you ought to live. Nobody. It doesn't work that way, nor should it. So, why write a book like this? (For that matter, why write any book?) One may as well ask, why should anyone write or play a piece of music? Why produce any work of art? Why teach; why give encouragement; why treat the sick? Ultimately, it is impossible, or, in an ideal world it *should* be impossible, to *compel* anyone to do or believe anything. In the philosophical extreme that both ancient and contemporary thinkers have understood, and that is, even under the threat of death, the individual does, finally, have the choice to die rather than bend.

But we don't need to go to that extreme, at least not yet. Rather, the more hopeful stance that we are trying for here is that every stretch we make beyond the mere extension of our own mortality is a *try*, an attempt to reach for something *finer*, more worthwhile. Why it is desirable to reach for those states, requires no further explanation or justification. As Louis Armstrong said when he was asked to define jazz, "Man, if you gotta ask, you'll never know."

So, at the end of the day, the reason for sharing these reflections, derived from lived experience, is not to browbeat anyone into anything.

The reader has the ultimate freedom here, and if this becomes tedious or threatening, ignore it, as is your absolute right. Nothing that can be said or written can be anything more than an invitation. If anything here resonates, awakens you to experience or actions or stances you feel would be good and satisfying, then we have done good work, together. With that necessary interlude, let's continue to see if there are more insights to be mined from the concept that began this chapter: mono-tasking.

If you are going to live your life, even your daily life, so that you remember it, you may wish to ask yourself how you prefer to remember events. Again, no one can answer this for you; however, examples of ways others experience memory may suggest possibilities. In my role as a teacher, I often find myself mentioning “writing and telling” to my students as an effective way to remember daily experiences and find inspiration and instruction though it is easy for me to forget that this modality may not be everyone’s first choice. Being a “word” person, when I wish to re-experience an event, or mine it for detail and meaning, my first choices are to write about them and to have conversation about them. Writing is largely not a labor for me but more of a reflex, and I write nearly every day although most of what I write is not for publication. Instead, I keep journals and have done so for most of my life. The only person who routinely reads these entries is my wife. Still, I feel that I can only fully comprehend something, almost anything at all, once I write about it. Someone else might well consider that odd, but there it is.

Is it possible to fully experience and appreciate one’s life in other modes? This must be the case, although that realization first came to me about twenty-five years ago. This was a true epiphany. I was in graduate school, and I was so completely immersed in texts and in

writing that often words appeared to me in my head, a visual text field on a virtual sheet of paper, right in my mind's eye. Source material often appeared to me in the same way during seminar discussions or conversations. This had become so familiar that it quite literally became the mental experience I had when forming ideas. I assumed that everyone was experiencing the same thing I was.

One day I was talking with a friend whose field was Japanese poetry. I mentioned this experience of visualizing text off-handedly, not really expecting much of a reply since I was only commenting on the fact that we were all immersed at that point in the semester with writing papers.

"Wow, Scott," I said, "I've got to get more paper in that brain-hopper, you know? I'm writing every night now, and I've got to keep typing those pages as they come up in my head! But, you know what that's like."

Scott looked at me. "No. I don't know what that's like. That isn't how I write at all."

As silly as it seems now, at that moment I was certain that my friend was pulling my leg, so foundational was my own experience of ideation. I thought I understood him, and I thought we both had similar mental experiences as we were doing our separate studies. So, I checked.

I said, "C'mon. You know. I mean when you really get into writing, then don't you see the written words in your head? I mean, how do you get your ideas?"

What Scott said next completely unhinged me because I was so thoroughly lost into only one concept of understanding.

"I think in pictures, in images. Then I take those pictures and I translate them into words."

This was so utterly alien to me that I stared at him. “You are kidding, right?”

“No,” he told me, completely seriously, “That is how I put together ideas and write them out.”

Why this revelation didn’t inspire me to ask other friends how they went about thinking, I’ll never know. I filed it away as some sort of lesson that the world *might* be far more varied, even in the ways other people understood their own worlds of experience, than I had previously thought. After all, I had other work and studies to be concerned about, right then. I didn’t have the luxury to explore such things at the time. And so this fact remained tucked away for about seven years when I found myself at a summer conference after becoming a professor. I was in Washington State, and our conference group had taken a day trip to Mount St. Helens to look at the basin and the landscape some years after the massive volcanic eruption there. I was up at the rim, talking with another academic, and found myself in a conversation about how we experience our own consciousness and record events and understand ideas. I told him that a friend from my graduate school days had told me that he constructed concepts through images, which, when he needed to write or converse about them, he would then translate into words. My conversational partner, now framed by this vast landscape, looked at me with calm seriousness.

“Yes, that’s right. That is exactly how I do it as well.”

It turns out he was an art historian. And he was born in Japan. What does this mean? I honestly don’t know, but I am certain that they were both telling me their truths, and, in the years since those encounters, many scientific investigations in cognitive psychology have substantiated the variety of means by which individuals generate and manipulate concepts of all types, until we know that it is not words or

images alone, but all sensory interpretations may be brought to bear in the act of imagining, remembering, or reasoning.

So let us return to the thread begun earlier. How do you best understand your life, think about events and learn from them, intensify your memory and thereby amplify the experience of living? All that can honestly be said is that everyone must answer these questions for themselves.

What would you say is the best way to experience what is happening while it is happening? Before you answer, let me offer a couple of other observations for your consideration, still inspired by mono-tasking. They also spring from the central argument of the book you are reading, namely that there is something especially wondrous about the fact that we experience our consciousness, our life experiences, through the agency of the physical body that carries us through mortality. Perhaps the most significant empowering of our awareness of available conscious experience, both subtle and profound, is provided by proximity to the most fundamental aspect of our physicality: its very mortality.

This is a point that may seem obvious to many, simply by virtue of the widely utilized factor (by marketing experts) of limit or finitude being automatically linked to exclusivity, and therefore directly related to value. One way of stating this proposition would be to say that if our physical existence were endless (immortal), humans would have a most difficult task finding any moment or experience precious and worthy of marked attention. No matter how rare any *given* experience might be, an

unending life would necessarily imply an infinite number of opportunities to repeat any experience.³

Therefore we posit, without any further elaboration, the necessity of keeping mortality's limited duration foremost in our minds; otherwise, we would be lost in valuing it. If it is indeed so, then we insulate ourselves, as individuals and as a species, from our mortality only at our peril. Is it possible, then, that every technique we use to transpose reality or amplify our awareness and physical senses (whether telescopes, stethoscopes, or any other means of apprehending an event, "out there," including what we gather from the internet, has at least an even chance of diminishing experiential and cognitive memory rather than enhancing it?

What is implied by recognizing that we come to understand our conscious experiences through the mediation of our physical bodies in a physical world? Well, let's first look at alternative ideas about the nature of the physical world brought to us by physicists. Contemporary theoretical physics is facing amazing questions about the ultimate nature of reality, and to appreciate the various possibilities being suggested ought to be a cause for wonder, even humor, they seem so outrageously creative and curious. If you have followed the publicly offered explanations of subjects like cosmology (the origins and evolution of the cosmos) or particle physics (the search for the ultimate forces and simplest particles that give rise to everything complicated), you may know that by around the end of the nineteenth century,

³ This is just utilizing a mathematical concept familiar to astronomers and cosmologists, for instance, to counter the conjecture that the number of stars in the cosmos is infinite, rather than *merely* astronomical.

western science had thought it had these worlds fairly well figured out. But that, as they say, was then.

That was before Henri Becquerel discovered natural radiation, before the discovery of x-rays, before Albert Einstein had the temerity to question what sort of essences comprised both time and space. It came before Werner Heisenberg showed that the best way to explain how matter and energy (atoms and light) interact required being able to hold the most seemingly obvious realities in one's mind as irreconcilable paradoxes. Particles could be waves, and vice versa. And at the smallest dimensions, we could prove through experiment that a bit of matter could be in one location and suddenly appear at another location without having to traverse the space in-between! Furthermore, these strange conceptions of the ultimate nature of physical reality not only produce unimaginable monstrosities like black holes, but they also allow your cell-phone to operate, and they do this quite reliably and demonstrably.

How do we possibly make some sort of "sense" (an important and deliberate choice of words, here) of the counter-intuitive, mind-twisting qualities of the cosmos, both at its smallest and grandest extremes? Well, the answer, so far, is that we cannot make sense of them at all, if by sense we mean that we can construct an analogy to say that these effects are "like" something else that we might infer from our everyday life of normal scale-and-scope, from our *senses*. They seem to have no analogy to interactions that endure for time spans and spatial measurements that we can understand with our bodily senses, or with masses we can relate to with these same bodies.

Einstein's space and time warping are noticeable at the extremes of measurement, available through mathematical notation, or through the most exotic instrumentation, but totally beyond the realm of our senses

or even our normal experience-inspired imaginations. In fact, some current theorists are of the opinion that the notion of time itself may be a fiction, a construct of our particular consciousness. It may not exist in any meaningful sense at all. The great gravitation and relativity theorist John Wheeler famously quipped, “Time is what you need to keep everything from happening at once.” Other equally estimable scientists have said, without irony, that time is nothing more nor less than what a clock tells you.

If any of these ideas were not only demonstrably true at the cosmic extremes, but they also explained all that could be said of the human experience, and we took that seriously, we would have to dispense with any sense of the reality of cause and effect. Sequence, as well as *consequence*, would need to be discarded in all our philosophy. What *is*, both the things that exist and their behaviors, would be no more nor less than that: what *is*. Any further mental affinity we might find to understand how things are, like recipes or predictions, intuitions or theories, based either upon physical laws or social precedent, we would need to sever. We would have to consider any such overarching concepts (in cultural tradition, we call these “meaning stories”) as so much consensual hallucination. Of course, within such a worldview, it is utterly pointless to insist upon laws of any kind (physical, social, ethical), and equally *meaningless* to maintain a rule of law or a system of justice. In fact, it would be most difficult even to ascertain the meaning of *meaning* itself. And it is possible that there is some place to stand in the cosmos, where all our precious notions would dissolve. However . . .

However, for some reason (or infinitesimally remote arrangement of realities) we *do* exist, that is, in our mortal bodies, in our human experience, with our human consciousness in this universe. We do experience matter, space, sequence and consequence, not to mention

inertia and momentum, weight, light and dark, boredom and excitement, the expected (successful projection in time) and the startlingly new, by allowing ourselves to find that experience through our bodies. How significant is that?

What is two weeks of time to a fruit fly? It is an entire life span. To a Galapagos turtle? I don't know. How far is a mile to a dog, an ant, a human infant? What would Beethoven's 7th Symphony sound like if he had composed it in a world where the strength of gravity were, say, twenty-percent weaker than we experience, or where the color of sunlight were slightly shifted toward the violet end of the spectrum? Let us at least allow the *possibility* that if any of our most common physical and sensual influences were to be varied by even a relatively minor amount (still permitting an easily-endured environment) from how we currently experience them, that this could easily produce a radical alteration in our experience of our mortalities, even to seemingly unrelated essences such as community, empathy, perhaps even justice.

If we are to wake up to a full experience of what happens, or to a fuller experience than we commonly allow ourselves, we need to pay attention, AND we need to stop taking everything for granted that floods our way, giving preference only for the kind of sensory shock that will not be denied our attention. We need to learn how to pay attention to the state of being NOT sick, rather than attending to our illnesses alone. We need to be able to hear the infinite variety of meanings and emotions in a simple spoken word, and not only in shouts and screams. We cannot wait for natural disasters, alone, to alert us to the physical world. Instead, we need to be available to the notion that it is remarkable that the cosmos consists of something, and not nothing.

Two quotes come to my mind at this point. The first is from the German philosopher Ludwig Wittgenstein. “The aspect of things that are most important for us are hidden because of their simplicity and familiarity. (One is unable to notice something because it is always before one’s eyes.) The real foundations of his enquiry do not strike a man at all.” The second is from the French existentialist playwright, Eugene Ionesco. “The end of childhood is when things cease to astonish us. When the world seems familiar, when one has got used to existence, one has become an adult.”

When we have enough, what compels us to want more, whether money, authority, notoriety, food, or even more years of life itself? These may seem like such obvious and commonsense sorts of questions, and they are. Does that make them any less valid to ask? Is there a reason why every wisdom tradition in civilization returns to the same questions? What changes is the context. That is, we continue to find novel ways of distracting ourselves from asking these ancient questions.

Every age has its seers, its visionaries. Among those who put their insights and warnings into writing there have been numberless works of genius. The wisdom is there, but it is only available if one is awake to it and eager for it. I remember reading a bit of contemporary folk wisdom once. I can’t remember where it was stated nor who said it, but it went something like this: “It’s a free society. Everybody should be absolutely free to pursue any ‘wants’ at all. But if the society is worth anything, people should also have access to a good education—so that they can have better *wants*.”

So, how do we distract ourselves? You probably don't need help answering that.⁴ How are the effects of distraction, and a closely linked syndrome I have previously (in an earlier writing) called the pursuit of surrogates, playing out for us right now? And what alternatives might we consider instead in some common paths we mostly tread? Those are the ideas we shall look at in the pages ahead. It will serve us well to take some notice of not only our default activities, all those actions and reactions we feel are the necessities of making one's way in mortality, but also some possible explanations for those choices.

The following example seems almost too obvious for good taste, but I'll mention it anyway. *The Economist* published a brief summary⁵ of a recent piece of research done by Terence Burnham of Harvard. Burnham recruited a group of microeconomics students and had them play the Ultimatum Game. It involved a type of betting, uncomplicated in execution, which Burnham had cleverly modified. He made the game brutally transparent in order to reveal precisely what he was after: irrational drives in human economic activity. I won't go into great detail here, only enough to make a point.

In this game, players were set into pairs, and they played single rounds for a \$40 pot—real money, which the player/s got to keep. The players were given a certain amount of time to make offers and counteroffers to each other. They could only win anything if both of them agreed to the same split, but Burnham had adjusted the rules so that only a few combinations of splits were allowed, and there was no

⁴If you would like to read a short parable of the effects of distraction, I would point you to our trustworthy guide Kurt Vonnegut and a short story he wrote in 1961 called *Harrison Bergeron*.

⁵ *The Economist* July 7, 2007, “Money Isn’t Everything”

50-50 split. For example, if one player made an offer of \$5, it meant that, if accepted by his opponent, he would get to keep \$35, and the opponent would receive only \$5. This may sound unfair, but both players knew exactly what was at stake. If they reached no agreement within the round, neither player got anything.

By the standard rules of economics, the only motivation is to maximize one's personal gain in any transaction. Accordingly, if one of the contestants proved intransigent (say, offering only the \$5/\$35 split to his opposite), it would make sense for the other player to accept the uneven offer before the end of play, so that he could accumulate the \$5 rather than nothing at all for both. Remember, everyone knew the complete dimensions of the game, and these were, presumably, smart, educated, rational players, who would easily be able to arrive at the rational choice. But they didn't.

Oh, and one other thing. With the contestants' consent, Burnham also took saliva samples from all participants and measured their testosterone levels. Okay, you can see the train coming, I presume, and, yes, it is obvious red meat. The majority of men with the highest testosterone levels rejected \$5 bids, preferring to get nothing if it denied their opponents, while only 5% of the others (with lower testosterone levels) made the same decision. Right. So, why do we play these same strategies in our lives, presuming that things like one's personal well-being or wealth, or prestige or influence, or, indeed, happiness itself are all zero-sum games? It is obvious, isn't it, that men are fascist pigs, and the more of a "man" you are the more of a pig you are, right? Wait! I'm sorry. That was the red meat answer, and that wasn't where we were going.

The actual point is not quite so obvious. Certainly it is no longer a surprise to anyone, in this day and age, that we (that is our personalities,

inclinations, and actions) are the products of lots of things. Yes, boys are different from girls, but boys are also different from other boys, as girls are different from other girls. Anyone who pays attention to their own lives and choices will, during the process of maturation, be taken aback at choices or tastes that seem to be direct echoes of one or the other of our parents. When we were younger, of course, we may have insisted to ourselves and our friends that we would never do such a thing or choose such an outcome. It is a prerogative of youth to assume greater enlightenment.

Furthermore, we also know that if we deliberately or accidentally change our biochemistry, we can radically change our personalities, at least in the short term. But what of simple volition? Certainly we are more than mere stimulus-response mechanisms, no? After all, if we insist that there is no such thing as intention or choice that can enter into the equation, well, then, there is no reason for this or any other discussion of choices. In fact, we may as well abandon all hope, and consign our lot to one in which even cause and effect, sequence and consequence, are all so much consensual hallucination.

I am not trying to banish hope, but rather to say that this sort of research ought to wake us up. Rather than continuing to injure others and ourselves by giving society just enough rope to hang itself, perhaps we can choose to be better than our mere biology would indicate. To be explicit, here, and to give the reader a chance to get her money back if my impulses are too disagreeable, I do have some ideas of toxic fictions we are still using to conduct our lives, and which I think we need to outgrow for our own good.

I am going to take it as obvious to those who wish to be thoughtful that we now have sufficient evidence to reach a few conclusions about right and wrong, better and worse. Here's one: we are not separate from

the consequences of what we do to our own bodies, or the body of the planet. I know that this is *au courant*, and it doesn't seem like I'm taking a big risk in saying that, but this is only a preface for where we are going in the pages ahead. And if this seems common sense, I would suggest that this idea has only recently become acceptable within industrialized societies. Now, though, we all agree.

That is wonderful. However, I am also old enough to have lived through times when the common wisdom, embraced by the so-called educated elites, did not include an understanding of equality between genders or among races. One need not go back too many years to find homosexuality categorized, officially, as a psychological illness that could be cured. Our understandings really do evolve, in powerful and fundamental ways even as there remain vestigial examples in exact opposition to those insights.

Today we claim to understand our connectedness to the living planet, even as we still carve out crannies for individuals and corporations to poison our lifeblood. We/they claim that these exceptions reflect, somehow, a right to be protected. We expect any change in their behavior will follow a natural law of the marketplace. In consumer societies, to act in ways distinct from the tendencies of the unfettered marketplace is thought to be as perverse and senseless as trying to deny the law of gravity because we find weight inconvenient. (I remember my own dad saying, when I fell off a kitchen chair after I rocked back too far, "Son, we have laws around here. Like gravity.")

So, let's accept the fact that we have bodies, that we have tendencies, desires, and weaknesses. But we also have the ability to stand apart, to ask ourselves what we are really spending our time and effort doing, and to decide to act otherwise if we don't like our inventory. Yes, learn from your body, but don't stop at the stage of reflexive desire. Learn the

most obvious thing that your own body has to tell you: you are mortal. Rather than hoping that medical science will push back the date of your mortality, or hoping for a better-than-life outcome in the sweet by-and-by, or trying to jam as much as you can into every twenty-four hours (only to realize that at the end of a month you don't remember a thing), why not simply pay attention?

Awareness, without any further attributes, is not the sum total of the good life. It is certainly possible to be a focused and aware person and also be malignant. Perhaps Attila the Hun was a conscious individual. That isn't the point. One can always choose to be a bad and selfish person. Or, one can *wind up* being selfish and hurtful (spreading unhappiness and anger in your wake) from living thoughtlessly. However, I might suggest that few individuals live lives that are generative and kind completely by accident. Most of us don't live joyful, deep, and worthwhile lives, or intensely memorable lives, *without* paying attention. We must attend to the present in order to produce grace and gratitude.

A simple caution is in order. Even if you feel we are all good citizens, agreeing on what we all know to be rational and enlightened, you may not be equally inclined to agree with all the points in the pages ahead. You may even take offense. Still, that doesn't mean we can't be friends, right?

Chapter 3: You're Staring at your own Eyeball!

While this book amounts, hopefully, to a single meditation, it helps now and again to restate the theme. Our individual mortalities are limited, and living with intention and awareness is the only way to ensure we experience the most fulfilling and memorable life story, given whatever circumstances we have to work with. This is true for any of us, in any time or culture, whether we are born into privilege or privation. We are not promised material wealth, or bodily health, or even peace and happiness as these things might ordinarily be defined. No one conscious of the world's distribution of wealth, the prevalence of diseases, or the uneven degree of civility in civil societies could claim anything different without maintaining a cruel indifference to the plight of a great many of our global brothers and sisters. Given the entire spectrum of life conditions from surfeit to suffering, it remains true that we derive the most benefit from whatever mortality we have by living as intentionally as we are able, with as much attention to our unfolding actions and experiences as we can muster.

We might say that the previous chapter was one way of describing the golden rule, of treating others as we would wish to be treated. Except, I would submit, that this common evocation of that ethic of care is the golden rule, version 2.0. Version 2.0 presupposes that we know how we would like to be treated ourselves, yet there is plenty of evidence that, to a substantial degree, we do not really know. We think we know, and our assumptions are on display whenever we put resources into doing something for ourselves. Once the necessities of life are met, our resources largely go to funding unhealthy excesses and diversions.

In the final analysis, the most valuable asset we can receive is undivided time and attention. In other words, before you can truly understand how to act toward another individual, you have to know how you yourself should be treated in a *proper* world: humanely. And the ultimate paradox is that until you figure out how to *properly* give away time (to yourself as well as others), you will never have enough of it. Once you do begin to have a sense of what you intend to express by your living, and learn to mono-task, there is plenty of time. In fact, the reservoir of time as we experience it actually multiplies the less frenetically we try to capture it and fill it.

Let's imagine we are aware of our actions and experiences on a daily basis, and if we are not completely happy with what we are doing to earn our daily bread, we are confident we can develop plans to remedy that situation. After all, the construction of a life is both an every day effort and a life-long process. Furthermore, change, as anyone can attest, is never pain-free or easy. Sure, that's all pop psychology. But it's also true. We'll get to some more useful ideas, hopefully beyond blandishments, later on. For right now, let's assume that living with intention according to one's larger wishes is within sight. Is there any reason why you would not wish this kind of mindful satisfaction for others? And why not start with those for whom you care the most?

If you don't have children of your own, you most likely know some. Let's think for a moment about the world children encounter, and begin right at home. To make this the most manageable, let us even begin with a childhood of some imagined average, middle class comfort. So, however idealistic or imaginary this might be, let us presume that we can take as an example children growing up without undue want or illness, without major social or personal trauma. We will postulate a childhood with access to some sturdy but otherwise unexceptional

education, in a relatively safe neighborhood with a community sense to it, as well as other healthy kids as companions, and, not insignificantly, a child with access to clean air, water, good food, and health care.

Now, if we could insure these fundamental gifts for all children in today's society, what would possibly be the agenda for young people as an imagined plank in any politician's platform? Would this not be the realization of the social end-goal, so far as children are concerned? This, after all, is the supposed good society of which we hear, which we believe as a national article of faith is still possible. If only we could get to that level of the good, for all of our young people, we would like to believe, we would have achieved our greater purpose, with nothing left to do. And perhaps, in some time or cultural location, that ideal would be a true arrival at a durable and just society.

However, a closer inspection would seem to reveal that even this supposed ideal, so distant from being realized right now, does little more than erase some of the corrosive aspects of contemporary childhood (paralyzed communities and families, violence, distorted social attachments, poisonous environments), without moving at all in the direction of growing a *good* society for our times. In other words, what we are saying is that in a good society, we could aim for more than the elimination of obvious harm, and that perhaps sustainability at all levels isn't the only point.

But what *is* an even better society? If it were possible to eliminate want and injustice, what else could there possibly be to strive for? This is not a superfluous or fatuous question even though nearly all social inquiry stops at this point, presuming we will in reality never attain a truly just society, and therefore we will always have work to do. It is tacitly assumed that any talk of social advancement beyond the elimination of physical want and the securing of uniform justice lies in

the realm of religion, only, and is primarily outside the concerns of this mortal existence in any event.

This is a dessicated and pinched view of life. Such restriction makes it nearly impossible to seriously consider our affairs and concerns to be anything other than materialistic, and zero-sum transactions. While we are still working on eliminating obvious harms and inequities, it is important to have even loftier goals in our social consciousness and public conversation, so that they can inspire us and give more proper direction to our efforts than merely repairing our self-inflicted social insults. Such visions would give us goals where the path toward them passes through the attainment of health, justice, and sustainability while seeking even greater aims. Without these visions, our processes and work, as a species, lack any elegance or endurance. Like the zen-trained archer, if our intention is only to strike the target, to coerce a collision of projectile and terminus at a fixed distance away, then we strip the system of bow, arrow, and archer from its innate purpose, which is the flying toward its home, or origin. Only visions without endpoints call for the grace of movement athletes term “follow-through.”

Consider our presently flawed society as a patient in a hospital. Of course you, the patient, want your broken bones to heal, and hopefully you have a medical team trying to help you recover. And then what? What are you hoping to do once you are out of the hospital? As any thoughtful person can understand already, we are looking for a vision that makes sense while still considering ourselves a free and liberal society, eschewing anything like a state religion. But let's step back a little first. We were considering what a good society might catalyze in its children, beyond freedom from unnecessary want and injury, but avoiding performative rules that don't edify, or dogma. Perhaps more

creative thought will be available to us if we first remove some layers of what we, almost reflexively, believe are the givens, the absolutely essential elements of growing up.

Not all rule systems are harmful, of course. Beyond rules that protect from physical harm, even fundamental guidelines of respect and etiquette—so long as they are not extreme or arbitrary—can profoundly improve civility and encourage interpersonal order and stability that are especially important to the psychic health of children. Beyond these guidelines, of course, there are many others concerning the amount and kinds of physical and mental activities that encourage growth and engagement among children. Without doubt these patterns can look quite different from one culture to another, but we trust that so long as any society is respectful and generous toward its children, then useful and durable expectations can emerge heuristically in fairly short order within any population.

At this point we are not attempting to define the proper expression of every healthy practice for raising children in any society. We are only going to address one of these childhood experiences here: the system of classroom education, considered an unassailable good in most of the world. We would all like to improve it, but few of us question education at its root. What if we were to apply the same metric for living an intentional and conscious life—paying attention—to the universal educational system in the contemporary United States? The intent is not to take easy shots at a most difficult profession. I have been a teacher most of my life, including five years spent teaching high school math and physics. This is hard work, and it has many bright and idealistic members in its professional ranks, so I do not intend to demean teachers. I only wish to do a personal reconnaissance of

something virtually everyone who grew to adulthood in this country has already experienced.

Let's begin by posing a few questions for consideration. First, of all the individuals whom you have met, spent time with, worked with in some way, which ones immediately spring to mind as being the most significant influences on the core individual you have become? You can choose anyone you wish and for whatever reason. This person may have played a mentoring role, or allowed you to see (beyond merely telling you in a few words) that they found you to be a good person, worthy of trust, or friendship, or love. Perhaps they were able to open up a new world for you without realizing it. It might even be a so-called negative example, a relationship or interaction that became a touchstone for modes of being in the world that you vowed not to replicate.

This is your own particular list, and it is not transferable to someone else. It constitutes important lived experiences of yours. When you recall these individuals who had profound and lasting influence in your life (and hopefully, there is more than one person on your list), ask what qualities they had in common. If these persons were also flawed individuals (as we all are, though some have flaws more obvious and more significant than others), you are certainly allowed to keep the valued quality foremost. For example, you may recall that a particular individual had enormous influence on your developing confidence in one area or another although that person could at times be unduly harsh in criticism, or even hurtful. Whatever you need to do in order to compose some sort of personal hall of fame is valid.

When I ask this question of students, about half the time they choose one or both of their parents as their top-tier mentors. They often mention things like the depth of caring and sacrifice on the part of a parent although it seems never to be the case that the parent

demanded his or her child to recognize the suffering or sacrifice. Often, when a mother or father is chosen, it is because she or he is a profoundly happy person who loves being in the company of the entire family, experiencing things that give joy. Occasionally, there has been some tragedy, either within the family or otherwise, and a parent expressed both affection and nobility in dealing with that event. These are the most memorable people in the lives of a rising generation, from my experience, and it is cause for celebration.

It is not always parents or relatives who attain such admiration. Not infrequently, someone else has spent time in a powerful and meaningful way. For students who have been deeply involved with athletics, there is often a particularly demanding and inspiring coach. For those in the performing arts, it will likely be a most important drama coach, or music or dance teacher. If the students have had any important work experience beyond the usual after-school job, they may well cite an employer who taught a craft to his or her young employee, and who, furthermore, loved that work himself. For students who grew up in an organized religion, they may mention a camp counselor or some other adult, but more frequently in such cases it is a group of peers who are memorable, such as a church basketball team.⁶

Within all of these role models, the particulars are varied. Some mentors had been particularly understanding, even protective, while others were more performance driven and determined. However, even with those extremes of overt personality, all of the notable mentors seemed to have one thing in common: they left the recipient with a gift

⁶ For all of the adult fears that children admire the bad role models of pop culture, these are never mentioned when we get down to the serious level of considering who is important in their lives.

of something that he or she could actually DO in the future. A skill was awakened in that student, which he could use to create and generate something new and which could then be passed on to others. It was in the *doing* that the students learned all of the other things, such as respect and concern for others as well as oneself, self-reliance, flexibility, determination, and the irreducibly sublime pleasure of hard work, success and mastery.

I have never heard anyone saying that their most memorable, life-changing moment came when someone told them, in no particular context, that they should respect themselves and others, or told them that they are a good person, or blandly admonished them to tell the truth. "You shouldn't lie. After all, would you want someone to lie to you?" These sorts of instructions are worse than wastes of time. Their banality, and their lack of connection to anything that *could* possibly make the students proud, fundamentally dilutes the real truths that those words could convey. On the other hand, those same words *might* have meaning and be memorable if they came in a context of real significance, during real effort toward a goal of importance with real-world consequences, where one can either succeed OR fail. Because that is what life is supposed to be teaching us.

It was hard for me to avoid using the word teacher in my list of mentors because teaching seems fundamental to receiving anything of lasting worth, such as a value system or wisdom. However, students cite few classroom teachers as being strong and memorable influences, or when they do, it almost never was the act of classroom teaching that was significant. Rather, it was an experience unrelated to learning subject material. This troubles me, in part, because I identify with this profession. This is what I am and what I do. And I know of many teachers who do extraordinary work. What can account for the relative

paucity of young people who recognize classroom teachers (that is, when they are teaching academic subjects in the classroom, the assumed first-order work of professional teachers) as these students' obvious exemplars and mentors, as their signature life changers?

Perhaps part of the reason is the ordinariness of being in a classroom, being instructed in a subject by a teacher. After all, these young adults have been attending class more than any other single activity in their lives (except for those kids who have been allowed to devote the bulk of their waking hours to social networking or other online activities). The commonness of this experience may explain why young people don't take greater notice of their educations, but it doesn't explain everything. How much of what children are required to learn can they immediately use to make their way through life in a meaningful way?

We expect children to spend many years attending to this preparatory skill building without seeing much of a sensible and rewarding application. The payoff is long in coming unless a child happens to be one of the truly tiny minority who just like being able to do schoolwork for its own sake. Or because they are unusually good at mastering paper-and-pencil tasks, and they really like being complimented on that proficiency by adults. In all, that doesn't account for many children. A much greater fraction of any population of young children are passably good at these kinds of disconnected and disembodied tasks, and they find it easier to go along with their peers and the expectations of adults than to rebel.

Adults, at the other end of the journey, often know that literacy and numeracy *do* aid (down the road) in earning one's living. Some adults even appreciate that these skills and habits can enable one to be a life-long learner and creator, where the rewards are far more sublime

than the practical effects of being able to read road signs or estimate the financial risks of making business investments.

We must realize that even if we are able to locate enough punishments and inducements to get most children to go along, this kind of entrainment is an invention of modern and postmodern societies. The most common patterns for educating our children over the past century have mostly been devoid of what has served humanity well for eons, namely patterning, task- and skill-mastering, and direct emulation of adult work, which is the entire idea behind artisan-masters and apprenticeships.

Is it any wonder that most time spent in a contemporary classroom leaves no trace in the memory of the child? The sole exception is for the child who knows from an early age that she or he will become a classroom teacher as an adult. Otherwise, what could possibly be happening that will be a memorable life lesson, and mark some threshold mastery? Ask anyone who has passed through many years of the most common formats of contemporary education what they remember, and you will get all sorts of stories about the time they fell on the playground and sustained a broken bone, about secret crushes, best friends, or even the schoolyard nemesis who made life scary. These graduates can even tell you how different classrooms smelled, what signs hung on the teachers' lounge door, and which cafeteria food was edible. In fact, they can easily recall nearly anything *except* to account for the thousands of hours spent in the classroom learning subject matter. Is this a good thing?

Even thoughtful, well intentioned, *and educated* parents have a first-order reflex when it comes to their children's education, and it takes actual deliberate effort on the parents' part to avoid parroting the current received wisdom to their relatives and to anyone else who cares,

let alone to the children themselves. How many times have I heard the rote advice reported from my students as the catechism drilled into them along with “brush your teeth” and “look both ways before crossing”? The daily mantra is the same one lorded over us (because we obviously all agree) by every politician, by every economist, every specialist from every think tank, and every guru of globalization and the much-hyped information economy: “You’ve got to get an education if you want to get a good job!”

In my previous book, *The Persistence of Visions*, I wrote at length of the difference between three different categories of mental “stuff.” In simplest terms, first there is information, which is no different from data. Information is what you find in a telephone book, or a parts catalogue for machine screws and washers. It is simply lists of things, be they zip codes or the permanent holdings at the National Portrait Gallery. Knowledge takes information and does things with it. Knowledge incorporates the means for using information toward completing that task. This may sound like the really high frontier of learning, and you may now be tempted to look with derision on terms like “information economy,” or “information society.” But even knowledge leaves much to be desired, and it leaves out *everything* that is most essential at this juncture in our evolution as a species. We don’t consider it a worthy human aspiration these days to be merely a repository of information. That is what data storage devices do.

However, and this would be hotly contested by most professional educators, but even the adroit master of disciplines of knowledge does not have a claim to permanent value in today’s economy, even if that knowledge is up-to-date and in a field of utility to a valued function or service. That is what so-called “expert systems” were developed for, going back three decades or so, and they are widely utilized in

manufacturing, planning, and even the practice of medicine. One way to understand this is to recognize that any system that can be run by a routine (think automatic welding machine or computer), ultimately WILL be run automatically. Therefore, if you can completely define your professional activities in ways that would allow someone else to do the exact same activities, you should not be surprised to learn that soon no one will be doing your job. (Perhaps the most poignant evocation of this eventuality is also, so far as I know, the first: the automated Illium Works in Kurt Vonnegut's 1952 novel, *Player Piano*.)

Machines are not only handy for doing heavy lifting, but they are also superb at doing symbolic heavy lifting, such as data mining and communication distribution. But they are even better than this. Machines not only excel at being told, "do this task" and then doing it. They can also link together tasks and reach an entire goal by themselves. A machine can, in this day and age, design an entire building, maximizing floor space and minimizing energy use and the cost of building materials, and then it can arrange with some other machines to build it. That sounds a lot like knowledge, and it sounds a lot like the complex skills that would have securely employed many ranks of skilled professionals a mere twenty years ago.

Even such amazingly high-end activity as pharmaceutical research is being coursing through by machines not only as slaves, but also as first-order research partners. Computers now have the ability to sift through enormous numbers of bio-reactive molecules in the search for new drugs, without ever synthesizing them in the first place. They can recognize molecular variations that will predictably have one effect or another in a biological system. Is there still a place for the human researcher? Certainly, there is. However, so long as the only questions important to us (we who designed the computers in the first place) are

questions of how to get rid of pain when it occurs, or how to cure individual diseases that we find particularly annoying or economically deleterious to the larger economy, or basically how to immunize ourselves against mortality, we are talking about data organized to serve a pre-designated and bounded goal (stop pain, stop death).

Now, there are those who would say, "And what's wrong with that?" I would answer, "Nothing," and "Everything."

Who can be against defeating pain and suffering, or preventing deaths in children? That is fine. We know how to eradicate polio, which is a good thing. I had an uncle who suffered greatly from that dread disease. However, this was not the sort of thing I had in mind when I posed the question of what would be a still better world to shoot for, and *that* was the point of departure for this entire discourse. I would suggest that knocking down particular human disorders, one by one, does not even sound much like a grand quest for a truly expansive understanding of our existence although many claim that it does just that. I would say it is more like the great collateral payoff.

What vision stands up to scrutiny even while we continue to work at solving the hurts and insults the world currently suffers? Don't simply reply that this is an unnecessary question since we have a long way to go before we solve the world's maladies, whether illness, or material inequality, or other injustice! That reasoning provides no illumination of what the whole enterprise of human existence, of mortal existence, *might* be good for; it is just good for keeping us busy doing what we already do, like alleviating pain because it is painful.

Here's a different version of the same limited vision whose highest purpose is the philosophical equivalent of scratching an itch. Develop a nuclear bomb and use it twice. Then get the existential crap scared out of you because you recognize that other countries can do the same

thing. Then declare a “missile gap” with your arch rival after they put up an artificial satellite and wage a “holy war” on math and science education with the justification that, if we don’t develop our own “supreme soviet” of top-notch scientists and engineers, those infidels will bury us. Then announce you’re going to get to the moon first because those commies have already beat us with a satellite, with a dog and a monkey, and now with a man in space, and just not up-and-down as Allan Shepherd did, but an orbiting cosmonaut. Spend billions to get to the moon while spending many billions more building nuke-hardened missile silos and submarines capable of incinerating the planet many times over, all the while drowning everyone in fear. After half a century of this suicidal tit-for-tat, which could have easily been spent feeding the world, preventing disease, and making the actual lives we live (instead of the lives we were trying to preserve from nuclear war) something far-sighted, grand, expansive, and indeed, more worth living, what do we have to show for it? Well, hey, nobody pulled the trigger. And we planted a flag on the moon, and left some rovers and stuff up there. And we won the trifecta of side benefits. We got microprocessors, Velcro, and Tang.

Lest I sound like a namby-pamby nag, I’m a big fan of space exploration. I think that space exploration happens to be one of those pursuits where we can enlarge our own sense of purpose and meaning as a species—although you get way more bang for the buck in almost every mission done robotically rather than manned, and you learn things through telescopes and deep-space probes that you can’t any other way. But be that as it may, I think we could have been a much more wonderful human culture if we could have mustered the courage to say the exploration of space is an expansion of humanity! Instead we

purchased the whole thing as a way to scare the Russians while alleviating a severe case of “missile envy.”

It is worthy of human effort to try to understand the cosmos into which we were privileged to be born, so let's do some of that, and let's do it intentionally. Of course we must not neglect to do the other things, like making life a more gracious and less painful experience for the least privileged, and we do these things, as President Kennedy once said, not because they are easy, but because they are hard. If we wanted better computing hardware and software and networked systems, why not go for them directly instead of only having them as spin-offs on the way to some Dr. Strangelove fantasy? If we think it is so important to have artificial breakfast drinks, or non-adhesive fasteners, well, let's put up a teensy fraction of the defense budget for a national inventors' contest with the reward being some modest jackpot, a book deal or a television special, but with the patent rights designated to public domain, *a priori*.

These days we hear once again that we need to produce more scientists and engineers and mathematicians to do two things that are couched in the same withering threat and fear as the Cold War and the missile gap. First of all, we have to stay on top of the economic food chain or else all of Asia is going to eat our entire quality of life as though it were an appetizer at a banquet. This, of course, means that we have to control the science (the patents and research universities) as well as the intellectual property rights to the really high-end stuff (name-brand marketing and product tie-in strategizing). And if we don't get taken down to being everybody else's service provider first, we're all going to die through the effects of global warming and, wouldn't you know it, those *foreigners* are the worst culprits! (Or they will be, since it seems they are determined to have the same standard of

living that we have. How *dare* they.) And we have to make damn sure they do their part or, we'll show them, we won't do our part either: another version of the "bigger bomb" theory, also known by its cold war label, Mutually Assured Destruction, or MAD.

Oh, sorry. Getting off track, here. Yeah. The point was, "You have to get a good education if you want to have a good job." And that solipsism, if repeated often enough and by everybody, is not only going to save your individual child's future, but it is also going to get enough young people within America to keep enough of those really important jobs in this country that we will also, by implication, save our standard of living and keep Social Security, you know... secure. You know? And some of those smart kids are going to figure out how to keep me on the golf course until I'm 120 because, well, there will be so much money around that they can make a lot of it for themselves if they can keep me alive. Maybe one of those clever kids, while mastering the N! level of Squid Blaster Zombies will accidentally figure out how to inject my First Life (mortality) into Second Life, right? Could happen, just like all great things happen in Tomorrowland, just by messin' around with technology. Cool. Kind of like Tang.

Hey! There's money in it for you, kids. The ultimate justification for anything. And so far, there are only a few problems with this plan. One is that global warming or species-collapse might take us out first, and that would be a real drag. The other is that, no matter how much we yell at the collective rising generations, they aren't signing up for certain of the good jobs. It seems that of the two options we might blunderingly call first world economic core competencies, science and marketing, it is easy to get the kids into the marketing part, but they don't seem nearly so eager to become scientists. We need to put more marketing research into why that is!

To these two problems I would only add one other criticism. Even if you could get kids to do the *right* things—study hard, play by all the rules, do the difficult stuff like math and science—what is the point? I mean, what is the point for the child or young adult you are trying to influence? Perhaps it is to keep *you* financially secure in your dotage. Or, more generously, to provide a solid income for that young person you are urging on. And what is the point in *that*, exactly? Could it be to bolster the idea that *your own* life was meaningful, because the next generation is going to do the same thing?

Where does this lead? Any serious consideration of these lines of pursuit can lead to only two conclusions. One of them is the existentialist philosopher's end-point. If one plays the expected games but isn't even willing to ask larger questions than those proposed by one's own comfort, or instincts and pleasures, there isn't any meaning. There isn't any meaning in doing this stuff (but keep on doing it anyway!). Therein, alone, lies nobility. (If Jean Paul Sartre had ever given a commencement speech, that would be his finale.) Just keep on keeping on. Although nobility doesn't have any meaning either. You are playing a game with no meaning without even being willing to confront that fact.

The other conclusion allowed, if you find the above scenario plausible (that is, hectoring the young to do their part and keep the machine going), is truly bizarre. That is to throw up your hands, and, with an idiot grin, say "Yup. Sure is confusing, but wait. I'll bet the future will turn out to be great. I mean, that *future*, you know, you can never tell *what* it's going to drop on you, but I'm sure it'll be amazing, and then it will turn out to have been worthwhile, every bit. I mean getting there, to the future, you know? So, in the meantime you've got to hold out and hold on. So that we can get there. To the future."

Now, maybe this is alright. Not ideal, but endurable. Or, perhaps you are now pissed off. But when I was an optimistic seventeen-year old entering college, I didn't take on all that study and work to help the world limp on until some magical future force could drop a big dollop of goodness on us. Nor was I going to college to make sure that our GDP stayed way up there so everybody could retire. The fact is, I didn't have a really good reason for getting in the deep end and studying as hard as I did. I would be lying if I didn't say that part of the reason was because my friends and family expected it of me. I would also be lying if I didn't say that the kind of future I imagined for myself (originally, I wanted to be an engineer) simply required a college degree.

But the ultimate truth would come out. I didn't know why I was there because I didn't know enough about myself, or the world, or the need to explore and figure out why the world is as it is, and does as it does. Furthermore, I didn't know then one of the things I realize now. That education isn't just for getting a certification, or a bonus. It took me ten years and almost as many changes of major before I got my first college degree. However, that included changing schools, dropping out several times, taking on many jobs in the so-called real world, and learning first hand some valuable skills that helped me earn my way. Eventually, I majored in physics, but not to insure a living or to help out some amorphous entity called the economy. I did it for the only reason I now consider to be a worthwhile drive for study. I came to love it.

If we are going to spend so much of our lives becoming educated, then that journey had better be exquisite, in and of itself. Ideally, we are using the term "education" very liberally, here. That is, it captures everything we do where learning takes place, and not only the formal, classroom-based activity we commonly associate with education. When understood in this way, education ought to pervade nearly every

period and activity of a life lived with attention and intention. What efforts would lie outside any such understanding of learning? It is difficult to say, describing such labor from the outside, but one might say that little of learning or enrichment occurs when a task is consummately repetitive, and simultaneously devoid of interaction with an evolving (living) system, and those jobs do exist. Tragically, many of those jobs are done in regions where it is possible to torment children by treating them like disposable machines made of meat.

While we are careful, then, not to circumscribe education so that it only includes the traditional (twentieth century) system, it is *unlikely*, for many important reasons and not just cultural inertia and lack of imagination, that our systems of academic teaching will not remain the dominant experience of education for most individuals for the foreseeable future. If that is the hard truth, is there anything to be said for the virtues of book learning?

Without question. There is even magic in it if it is presented with passion, and so long as the experience strikes a chord within the particular student. Will all students resonate? No more likely will every student become a devoted sculptor when introduced to ceramics or be captivated by modern dance. Instead, allow the case to be made for what many might consider needs no defense. That idea is that standard academic learning, itself, can, for certain individuals, be a passionate experience, something which can make lived experience more exquisite, but not as a preparation or prelude for life itself.

This is what eventually happened to me, but certainly not early on. Sometime around the age of twenty, or a bit later, I developed such an attraction for the act of learning itself that, if I had died in some accident at any time after I had reached that passion, but before I had been able to earn a sufficient living or raise a family based upon what I

was learning, I would still have to conclude that it was a good life. It was already a life full of stories and memories, and people whom I had befriended, many people who had really helped me along the way, and some of whom I would like to think that I had helped. Before finishing my first college degree, I had already had a great many trials, some heartbreaking and some breathtaking. This was a really fine passage, and I was grateful.

And yet, for all its richness, it seems preposterous to insist that this must be a universal response to a book-centered education. How could anyone claim to know that a life whose passions were never ignited this way was somehow a lesser existence? Is the discovery of a richness and depth to conscious experience through reading, writing, and the consideration of texts with others of similar disposition a majority experience, or is it just one mode of finding transcendence in mortality that is more inherited accident than essential?

If we had some metric for determining this, it might well turn out that the presence of music in a human society has a far greater civilizing effect than do incorporating documents like pacts, treaties, or constitutions. Perhaps the development of agriculture owes more to performative rituals than it does to the scientific study of botany. We cannot ultimately tell which practices and learned knowledge have evoked the most significant practical outcomes, but then again, the most wonderfully human expressions are not pursued for utilitarian reasons anyway. And it is a crime to turn one's pursuit of education into merely a license to earn.

If the main point of getting an education is to get a diploma, doesn't that sound like a pretty anemic return for all those years of sitting in classrooms? We hear that the average college graduate will earn something like an extra \$500 thousand in today's (2009) dollars

over those without a college degree during one's working life. Okay. So what? I admit, not having the means to buy food, clothe your family, go to the doctor, and pay the bills can be the equivalent of a disease. I have had periods of years when disposable income was an oxymoron. If it weren't for luck (and scholarships and grants), I wouldn't have been able, later, to go to graduate school. Still, I have never been so destitute that I have gone (involuntarily) for more than a single day without eating, and I am fortunate. I was never in so desperate a situation that I had to compromise moral principles to get the necessities of life, and it feels terrible to know that there have always been humans who have lived and died in such circumstances.

Obviously, I would submit that getting a diploma is not the reason to go to college, and American society would be better served if we stopped subjecting youngsters to such toxic advice. That kind of reason being applied to education, whether it is parlayed as the means to a good job, an extra few thousand per year, or even keeping up on your mortgage and having medical coverage, it still sucks the life out of what education can be. Beyond that, the merely utilitarian inclination toward education robs, by implication, a young person of the gift of the life they are already experiencing.

This attitude, in effect, says that your life doesn't really begin until you are *out* of school, doing the only real things that matter in life: having a home, going on vacations, building up equity, perhaps having children, and maybe, who knows, even doing some kind of charity work after you get all the other stuff out of the way. This culture-wide inclination toward education as the necessary dues one pays to get in the middle-class door prevents not a few youngsters from discovering the joy of learning that they might have found. By defining education, *a priori*, as a society's test of endurance rather than the invitation to

intellectual adventure it ought to be, entering college students come to campus pre-jaded, expecting only a continuation of standardized requirements and fill-in-the-blank competencies they have known for years.

But, again, I would urge that this does not describe half the true damage that the utilitarian attitude toward education wreaks on us all. Education, it should be remembered, was, for most of human history and in nearly all cultures, the truest prize that an individual and a worthy society could hope for. The opportunity to become educated was not merely for having a sheepskin and a better office, or for being able to drain the working class although doubtless that cruelty has been wielded countless times. Rather, the grace of intellectual inquiry, of being able to have a discourse across the ages through the miracles of literacy, having both sight and insight to search out the world, not as a cultural code to be accepted, but as a vessel of both amazement and understanding, these concepts have always motivated societies to reach with their minds to realms far beyond their physical conditions and boundaries.

To say that education is correcting itself by becoming a tool, a mere means to a practical end, is not just wrong. It is obscene. Generations upon generations of immigrants have given their lives in sacrifice to menial jobs, but they found a hint of nobility by providing for their children. For what? So that their children could only repeat that self-same process? No. So that their children could strike it rich and be able to live off their windfall, contributing nothing to the world beyond their own comfort? Again, no.

Of course, there have always been those whose sole ambition was to hit the lottery. But for millions of immigrant families, the sacred goal was that their children might become educated, a word that, in certain

times and places all by itself, could inspire a sense of loveliness, of the best of what it meant to be a human, and not merely an organism performing its role in the food-chain. Indeed, to be on the path of learning implied sense of purpose and meaning. The call to learning was not, should not be, answered because of something one could do with a certain piece of information or knowledge, but because it was possible to understand some corner of the cosmos, or of the human heart.

For this goal of refining one's appreciation of what it means to be alive, among many others who have lived and are living, this goal above nearly all others was worthy of sacrifice. However, this sort of education is worlds removed from what we have reduced that term to mean in the contemporary world. The vital experience of learning, and the awareness of what is happening between oneself and the world while this unfolds, this total experience is something I call wisdom, and it has information and knowledge and technique in it, but it is wholly distinct from those other two categories in a meaningful way. But I've written much more on this elsewhere, so I'll refrain from repeating myself.

Is there any way to know if we as a society have proceeded much farther down this road in recent years, toward flattening education to mere purchasable object and a type of union card required for some social or professional entry? Well, I could tell you that this estimation of learning is what I hear from my students, but then that adds to the burden of generational indictments, of which we already have more than enough, and which are unfair in any calculation. Neither would this be completely truthful. It happens that I have been extremely fortunate to have been teaching for the past eighteen years in a special

program where the mode of teaching and learning are radically different, and radically more rewarding for both student and professor.⁷

We structure courses in this program, both in the upper and lower division, around intellectual themes and questions rather than around the standard breakdown of knowledge units, such as American history from the Revolution to the Civil War. This makes the subjects interdisciplinary by design, and it allows for the use of primary sources as well as fine contemporary syntheses. Secondly, we teach most of our courses as intensive seminars, where one professor will be with a group of 12 to 14 students, discussing readings and uncovering the meanings and interpretations together, in what is often called a learning community. Thirdly, we have always had far more “re-entry” students in our program than other departments. Therefore, I can often rely on a number of older students who, along with the younger ones, can bring their own significant life experience to bear on the subject at hand, and who also invariably express tremendous excitement by having the opportunity to engage in study and conversation about deep topics that matter for them. These older students are presented with these opportunities at the point when they are best able to appreciate that gift.

I know that many educators teaching in standard-discipline majors have stories (and I’ve read many of these) expressing their personal despair when encountering new waves of students who seem to have no sense of purpose in attending college and whose skill levels fall far below earlier generations’. I cannot say that these stories are wrong, but it has not been my particular experience in the vast majority of cases. For this, as well, I am extraordinarily grateful.

⁷ The Hutchins School of Liberal Studies, at Sonoma State University in Rohnert Park, California

Perhaps it is instructive to examine the literature that colleges and universities produce about themselves rather than blaming students only for being unavailable to the wondrous gifts of learning. Read what the professional specialists and government officials say about this huge enterprise we call education. (What a word, enterprise! Let's use it for everything, including art, religion, and all varieties of affection, okay? That way we get right to the point and avoid all this fluffy stuff.) Once the raw and bracing encounter with intellectual exploration has been filtered, pasteurized, and homogenized by the technocrats and bureaucrats, we are left with nothing appetizing. It is the mental equivalent of the space-age food replacement tablets boomer kids thought we would be eating in the future.

We find educators provide up-to-date and state-of-the-art expertise. Information centers are the mechanical throbbing-heart driving all processes of higher learning. And what the marketing publications of the most prestigious research universities will not say, but which is nonetheless true, students won't be taught by an adult mentor who is thoughtful and thought provoking, whose own passions are the hunger of learning and the delight in ushering others into the gardens of wisdom. Heavens no! They will be taught by overworked graduate students, most of whom are not planning to teach.

The parents of these undergraduates will be reminded, however, of the caché of that name school and of the Nobel laureates on the payroll. What they are purchasing, for their children and themselves, is celebrity by association. There is as yet no indication of a mass movement away from this marketing strategy. What university prefers the term "wisdom" over the much more defensible "knowledge," "information," or "twenty-first century skills"? In this brave new world of bottom-line education, or, more to the point, of information delivery and

certification, we have freshly minted terms that lump everyone who runs a university together (these are called “service providers”) and identify everyone who chooses to attend a university or who is sending an undergraduate to college (these are called “customers”). It is not difficult to predict what happens in an environment that has adopted this language to define itself and describe its functions, for it is already well underway.

When given the choice between, say, installing Jacuzzis in dormitories or hiring more professors to teach more intensely and effectively to provide a true intellectual adventure for the students, which do you, as an administrator, choose? That’s easy. Remember, in a pure business environment, the customer is always right. And what customers want is stuff they already understand, only more of it or with more chrome. If one has never experienced the transformative effect of discovering a new world, a system of ideas utterly surprising and wondrous, then why would that individual, or that individual’s parent, somehow out of the blue, wish that experience to be provided? Why not go with what you know? An exotic foreign sports car, a house in a pricey neighborhood, a European vacation, a diploma from a name-brand university, a sports stadium with top-ten teams to play in them. These are all commodities, and they are all interchangeable so far as their market value is concerned. And market value seems to be the only common denominator of contemporary culture.

We have lost the ability to discern innate value, so detached are we from the world as it really is. Furthermore, we have lost the ability to imagine value in things that are not...things. Therefore we turn to the marketplace to tell us what is worthwhile, and the only *lingua franca* there is the retail price. A new car, particularly a prestige brand, will set the buyer back many tens of thousands of dollars, and it is guaranteed

to drop in value by easily ten percent the instant you drive it off the lot. And yet the top tier automobile has no more value than any other automobile among the majority of consumers, unless other people recognize with a glance at the nameplate the approximate sticker price. On the other hand, anyone can pick up a paperback copy of Plato's *Republic* for a few dollars, and an old one purchased for fifty cents is just as useful. Which of these "products" is more valuable? To say the least, it depends upon which system of reckoning you use.

Here is another indicator that meaning is evacuated from the project that is called education. Remember the little test of consciousness from Chapter Two: "Do you remember what has happened?" This is a test that I might fail every bit as readily as any of my students unless I keep myself in the habit of lively awareness and gratitude. As has already been mentioned, if I ask my students what they remember of their lives from age five to eighteen, they can come up with all sorts of things: going on family trips, getting the chicken pox, winning a Little League game, learning how to ride a bicycle, learning their best friend turned against them, etc. Yet when pushed further, and asked for any memories from school, which is, after all, where they spent the most waking hours, they can tell me the name of the school, what it looked and smelled like. Ask them what happened in class, and outside of a general description of the physical appearance of the teacher and whether they liked him or her, they almost always draw a blank. Given the simple fact that we are most keenly aware of what we DO, not only what happens in our presence, this absence of memory should not be surprising.

It would be easier to turn this into an indictment of either some depleted quality of our young people, or of a sea of unqualified and clueless teachers in the last twenty years. The first explanation has no

mechanism to support it. There is nothing genetically distinguishable between the youth of 1970 when I graduated high school and the youth of today. The second explanation is a favorite hobbyhorse of highly paid talking heads, whether bureaucrats, elected officials, writers, or commentators. Many of these well-paid folks were trained as lawyers and administrators, and they are the most characteristic examples of public-opinion power brokers. Exactly how does their experience give them the right to be a cultural bloviator? Typically, they will pretend to some intellectual and cultural high ground. After all, the implicit reasoning goes, in a true market economy, if they are paid well to diagnose and make prescriptions for our schools and all that ails them, well, they must be pretty smart cookies who know whereof they speak, right?

They decry how so many of our students are both illiterate and innumerate, have no understanding of basic science, haven't read the classics, etc. Furthermore, they become enraged that the teachers themselves are not qualified. Undoubtedly there is some real truth, here. Still, it is a bit unnerving hearing this from the same shrill voices, over and over.

It is important to understand basic science, to be able to wield mathematics to do what you need to do, but also to seek what you might want to understand. Literacy is key. In the same way that you can never understand how exciting it is to ride a bicycle until you do it, how can you understand how exciting it is to read until you start reading? The child has to take a bit of a leap of faith to do it, but it is much easier and more desirable for her to put forth the effort when peers and mentors all around are avid, enthusiastic readers. Further, a child will never understand certain paths of thinking and exploring that come about

through mastering the written word—both words of others, and words you compose—until he begins to read and write.

Yet we hear nothing about adults knowing the same things. There are no recognized exemplars widely present in the population of this kind of multi-focal literacy. So, I propose a throw-down. I challenge any one of these well-paid commentators to meet in a public forum and be subjected to random questions in any field whatsoever. I believe that anyone with the authority to change policy that affects public education in any way, needs to, him- or herself, demonstrate mastery of any subject they consider to be part of our *essential* common intellectual and cultural heritage, up to the level over which they have authority.

Therefore, if one can pass laws and set policy concerning everything up through a common public high school diploma, then that policymaker MUST demonstrate absolute competence (*not* expertise but verifiable competence) in every major required area. You, politicians, must be able to write a detailed interpretation of Lord Jim, with access only to the novel itself; you must be able to discuss several important turning points in world history and American history *without* reference materials; you must be able to solve a problem within the curricular scope of Algebra II; you must be able to explain both how photosynthesis works and how the earth's orientation and movement produce the seasons; and finally, you need to be market-place conversant in some foreign language.

If, in response, that educational policy maker says the point of all this learning is merely to acquire a competency for future wage earning, and the reason they can't do algebra is because, well, the world didn't require it of them once they came of age and (since they personally aren't interested in mathematics) they don't remember it, then those individuals are morally and professionally bankrupt. This is like an

adult requiring children to receive a religious education, not because they (the adults) continue to learn about and observe a religion but because submitting to rules and dogma as children is somehow good for them. This kind of required obedience sounds more like adults seeking revenge than it sounds like a loving concern that the child will have a rewarding life.

Sorry, Mr. Senator, you are disqualified, as are you, Madam Secretary, and you, Ms. Superintendent. You have no right declaring what all our youth ought to be able to do when you cannot do those same things yourselves. If the only reason for learning certain subjects is to be fit for some area of work, then, beyond an elementary level, we, as a society, ought to dismantle the rest of the educational system and begin career-specific education much earlier. Of course this would also imply that only a very small minority would ever be asked to learn very much at all, beyond their specialty skill-set. Not exactly a model of cultural enlightenment, but exquisitely effective for the human species as just another variety of organism, like ants or termites.

Even if we dispense with the blowhard critics, and the administrators of education, it only leaves us feeling justified in the status quo. This does nothing to address the dysfunctions in education, which are real. What to do? The problems persist. And while there is cultural noise that distracts young people from serious concentration in an educational setting, and while there are certainly unqualified teachers and failed schools, the problem goes deeper still. It appears that we are missing the boat when we, as a large and heterogeneous society, assume that if only the external conditions were right, then all children would become, not scholars, but seriously, cleverly, book smart.

Not everyone will become book smart at the same age, but a system of learning that values learning as much as an aesthetic experience as a

professional potential will make available such opportunities whenever they find a fit with an individual's readiness. Many will never become book smart in a traditional sense, and not because of intellect, rightly defined. The more precise explanation is that many, if not most, find that their primary modes of reasoning, understanding, and imagining are not processed through texts or mathematics, but through manipulations and experimentation in the realm of materials, or visual representation, or aural or sonic created spaces. It may well be the case that a good many of us modulate through our lives, moving through various preferred intelligences and modes of understanding, and this has been very largely my own experience.

I did well enough in school to proceed from one stage to the next, but it wasn't until quite late in life, by normal standards, that certain aspects of academic learning became a preferred mode for me. Work experiences, interspersed throughout my early twenties and mid-thirties, allowed me to glean other ways of engaging with the world, as well as to discern in my coworkers the sorts of personalities that responded most strongly to each kind of effort, whether mental, physical, or social, and to realize great respect for many intelligences. Despite occasional hand-wringing and a few add-on classroom activities, not very much ever became of the theories of multiple intelligences in *formal education*—the single most common and intensive experience shared by children in the developed world—since those ideas were first introduced.

This is not to suggest that *everyone*, universally, should be working in a trade from an early age rather than spending most of their time in school. Some of my peers were truly at the right place at the right time during their school years. Some kids, for example, know that they will become journalists (or musicians) from an early age, and they turn out

to be correct. Why interrupt such a trajectory? Furthermore, there is much to be said for children whose future may be quite different from that of, say, the writer or economist, to spend some of their time in the company of children who will end up being such professionals. It is not all bad, certainly. But the tacit postulate that some kinds of education are more esteemed, regardless of the individual's internal experience and retained wisdoms, is corrosive to nearly everyone, and enlightening to no one.

As a mentor, I am at best ambivalent when confronted with students who insist that they know exactly what their education is going to comprise when they first enter college and what they will be doing afterward. On the other hand, it is most heartening to advise a student who seems intent on wresting meaning from life, learning, and experience even though they are troubled that they are not following the standard formula to graduation and career that is expected of them. That kind of confusion, ironically, makes perfect sense to me, and it is one of the few honest responses of intelligent young adults confronting the adult world and what it says about itself. To have them, at the same time, really care about the world and their confusion, is the most hopeful sign of a passionate life we can hope for in the rising generation.

If we are to have some idea of a good society that we might aim for, above and beyond fixing everything that is broken and healing the insults that exist, it would seem that we might make it much easier for our young people to realize alternatives for their livelihoods. We, as a culture, should not be in the habit of merely threatening our young with a nasty end if they don't stay in the queue. However, imagining alternatives for one's livelihood entails worthy efforts towards reaching a dream, and this must be distinguished from sloppy thinking and

indolence that is sometimes accompanied by an offhanded utterance of “hey, anything’s possible.” If it is a sign of cultural laziness and decay for elders to harp on themes of conformity to their youthful replacements, it is surely a sign of desultory detachment and dangerous ignorance for youth to assume that there are no constraints or consequences in their mortality.

There are other reasons why everyone would do well to partake of other educations, beyond text and computer, even if one is especially talented in those standard modes of learning. Today more than ever before, in order to lead a satisfying life, to be a contributing citizen without the need of intoxicants to blunt our cognitive dissonance, we need a grounding sense of context. Lives conducted without any comprehension of the actual physical causes and effects of everything most first world citizens take for granted are ultimately distorting and diminishing to the psyches of those who are oblivious, and dangerous to the well-being of everyone. It is important that we understand something about how much muscular effort it takes to saw a board or dig a hole before we are handed the keys to a 350 horsepower SUV.

It is important to understand what it means to earn a living either by the hour or by creating something, and how to live on a budget and balance a checkbook before we get a salary for working in some post-modern professional category where it is difficult to explain where the money comes from and why. To simply be inserted into a mortality where both our bodies and our senses can be transported nearly anywhere almost instantly, where lethal combat can be inflicted through a video link, where food simply appears for us to eat or discard, where miracle medicines are expected as a matter of course, this sort of lived experience is unhinging to the sorts of physical constraints that have

always taught humans how to behave toward the world and toward each other.

We also need to give our youth a more flexible time frame. Allowing our young people to make their ways along a variety of paths, taking risks, to be sure, but without being penalized for needing different rhythms in choosing pursuits, might help us become better humans and might create a more humane society. The fundamental idea is not to try to force the creation of anything. The fundamental idea is neither more nor less than allowing the members of a good society to own their own lives, to make the experience of daily life as meaningful as the individual can make it. And a large part of having enriching experience is to be fully exposed to cause and effect, not being insulated from all real-world limits, but engaging with them.

In the same way that it would be impossible to be fully conscious of our mortal experiences if they were not mortal, but infinite, so too it is impossible to learn anything of the wisdoms of both physical and social existence if we are insulated from all undesirable consequences. Allowing young people to be expansive in imagining their futures absolutely insists that this happen fully exposed to cause and effect. Freedom of action is no more than play-acting, or worse, if the actor is insulated from negative consequences.

This position for the goal of a society is certainly not new. Socrates inveighed against living without awareness of one's experience. "The unexamined life is not worth living," he told us. The Enlightenment philosophers and the Transcendentalist writers all argued that we needed to be aware and conscious of the richness of experience even in humble activities, while utilizing the power of discernment to understand what those experiences mean.

Why do we repeatedly return to the assumption that whatever social-baseline expectations our culture advertises, these are more important or more real than those which our own primary experience and reflection can give us? Is it so much Darwinian heritage that was once an advantage for our physical survival (follow the clan or tribe, because outside there lurks danger), but which is now seriously eroding our ability to experience our lives? Said another way, tribal instincts of inclusion once required the individual to be usefully engaged in helping the clan mutually thrive by providing sustenance, protection, cohesion and mentoring in real-world skills. Currently, the means we use for securing social inclusion (driven by the same evolutionary instinct) insist upon no questioning of these bizarre modes of bonding, which accelerate our detachment from the physical world of cause and effect while removing ourselves from our own mortalities and the wisdoms that offers.

While I don't claim to know the correct policy prescription that will make the process of growing to maturity more conscious, more individually useful, and less coarsening and toxic, several recent monographs give most provocative insights to these challenges within the current American context. Certainly, the questions of meaning and purpose, of authentic choice versus imitation, and of the qualities of different paths in encouraging conscious living have been with us at least as long as the concept of the individual as an agent of intention has been with us. However, it is most useful to continually revisit these questions within each new evolution of social norms, and the last twenty years have given us many new openings for interpretation within new contexts.

Can we rethink the core contents of our lives and offer up the wisdom we find from that inquiry as the true gift of opportunity for the

rising generations? This is not an easy task to ask of *any* society, but it sets a new evolutionary direction for a *good* society. It moves beyond mere physical survival, or mere multiplication of hedonistic indulgence, or even beyond the essential work of redressing of current injustices and privations, as crucially essential as it is to be about addressing those injuries. This last point is most important. It is right and good for everyone to be truly concerned with repairing the grievous wounds suffered continually by so many. The lives that are completely dedicated to those ends, whether social workers, contributors to non-governmental organizations, medical workers, or the many others whose primary motivation is to ameliorate suffering, and certainly including the many millions who work within communities and without special titles or attention, life would be intolerable without their noble services and special genius.

What I am urging here is something different in kind. The concept is rather that, as absolutely essential as it is to help those in need, if we have no other intimations of what is good about living, about the growth of cultures and individual mortalities within those cultures, then we have predetermined that this will be the primary work of even the good society. That stunted prescription for social aims and efforts will continue to utilize finite natural resources to create pockets of material wealth, and then it will temper this acquisitiveness by providing for a subset of organizations who work at reducing the privation and inequities visited upon those who are not located in those pockets of wealth. If it seems as though this critique is just a veiled promotion of economic utopian systems whose primary exponents were Stalin, Pol Pot, or Kim Jong Il, please reconsider, because, at its heart, this isn't really about economic systems although certain

economic playing fields do seem to abet and accelerate the mad rush to surrogate pleasures that leaves little room for meaning and purpose.

The conclusion that, at this time, even long before we have realized the requisites of a just society, we need to seek even grander and lovelier pursuits for individuals in a good society, is based upon several patently obvious realities. It is simply untrue that there is nothing new under the sun. While many of the human tendencies toward selfish indulgence and influence may embarrassingly persist from prehistory, the *created* world makes it possible and essential to act more expansively. Through our fashioning of engines of creation and destruction we wield far greater power than any we could effect through muscular work alone. We are at the very boundaries (populations versus resources) of what we can squeeze from the planet.

And our techniques of gathering information and forecasting outcomes in all varieties of human experience allows us to understand the consequences of our actions, and this prevents us from simply proceeding from generation to generation with the untempered faith born of ignorance. Our obedience to instinct alone will get us no further in evolution, and while we deny this in our everyday lives and activities, we actually know this to be true. We actually do understand that we can be a species that is both reflective and imaginative and that there is nothing left to be gained by living as though this is not the primary signature of humanity.

While it is easier to merely excoriate perversions and excesses than it is to offer up exemplars of right-living and fulfillment, still the primary direction of our exploration is to remove the illusion of substance from our pursuit of surrogates. This little reflection is not intended to insist upon a specific set of passions and pursuits that everyone should adopt because they are demonstrably more noble than

all others. Nevertheless, everyone has, from time to time, considered actions as well as inclinations in our feeling states, finding that some do seem to be of finer stuff.

We doggedly pursue the ersatz rewards because of real human needs and affections which, when rightly comprehended, can expand us in our mortality far beyond the experience of being only a functioning member of the biological food chain. Primarily, this book seeks to remove the exoskeleton of implicit justification in reaching for the targets of most of our mortal efforts, letting them collapse of their own weight. It is only within a landscape where these diversions, these surrogates, have lost their pornographic obviousness that we are free to search for intentions for our efforts that are more subtle and nuanced, but which carry the real satisfaction of a mortality without lack. Once we experience the ineffable delight of generative channels for our efforts, which often are ignored in the maelstrom of noise that is material affluence and celebrity for its own sake, it is easy to resist the demands of substitutes, so long as we also have located some sources of lasting satisfaction.

This undertaking can be painful for individuals and societies. Once the television is turned off and the other distractions put away, we may not be proud of what we initially see remaining. But that is where it starts. And why would anyone seek to enforce a social pattern that would deny young people the insights that make all the effort of living worthwhile, except to derive profit from their attachments? Are we, who should know better, only keeping our disaffected youth company in their anaesthetized state?

Many years ago a friend of mine gave me a collection of stories by the late American humorist James Thurber. All of the pieces were thoroughly delightful, and one that struck a resonant chord for me was

titled “University Days”, recalling Thurber’s own undergraduate study. One vignette found him in a required general biology class where a lot of time was spent hunched over microscopes, peering at pre-arranged slide samples, and drawing the images into lab notebooks. This stood out for me because I remember receiving several cheap, plastic microscopes when I was a youngster and never once being able to see anything through them. I tried viewing everything—a bit of hair, a fleck of skin—with every adjustment I could manage, and all I ever saw was a milky white blankness. Once I managed to see the toy light bulb that was supposed to do the illuminating.

I was much amused to read that James Thurber had the exact same luck as I had, and his professor, a dyspeptic, bearded old man, walked around the classroom, noting with small satisfaction that everyone seemed to be seeing and drawing exactly what they were supposed to see and draw. Except for Thurber, that is. This would cause the professor to get agitated and rudely correct the setting for his pupil, after which Thurber would, once again, eagerly put his eye to the eyepiece and see the same meaningless opalescence.

Until one fateful day. Thurber was certain he saw something, and it was very interesting. So he began sketching what he saw. The professor spied his student’s activity from across the classroom and hurried over to see his least talented student getting it right at last. He looked down at Thurber’s lab notebook, and was puzzled by the image. It wasn’t what was supposed to be on the slide. So he grabbed the microscope and looked through, and then, Thurber reports, “trembling all over like Lionel Barrymore,” shouted, “You’re looking at your own eyeball!”

As weirdly funny as Thurber’s telling of this is, it also produced a feeling state of recognition for me. It seemed as though nearly my entire early history within the walls of classrooms, all those years until

my early twenties, was essentially a large blank. The only memorable punctuations occurred when someone with authority pointed out that I was looking at my own eyeball while everyone else was ostensibly seeing something they were supposed to see.

Perhaps that is a more extreme version of an unintentional amnesia than many of my peers had, but in actuality, I don't think it is completely exceptional. It may even be common. Surely, this can't be the best option for our young people, especially considering that so much of my life outside the classroom during those same years produces such profound memories and striking awarenesses and insights.

Whatever stage we find ourselves in, whether a youngster in the classroom mill, or doing our best to master adult responsibilities, we need to be able to gauge what we are experiencing and why, without mistaking our own eyeball for the world around us. We need to take responsibility and realize that, whether or not there is an afterlife, this is the only life we can be certain we are getting. Even if there were to be another stage to our individual existence, there doesn't seem to be much sense in assuming that any other existence would be a repeat of this one, this mortality.

By almost any reckoning, now is the only appearance of now. The only certain waste of this experience, then, is to ignore it, to be willingly anesthetized, to be diverted by the random images and background chatter. Do you remember what happened one week ago, and how it felt? If you can't remember what you did and why, and what you learned during any extended period of time and not just during punctuations when events shocked you awake, is there any proof, any trace that you were actually alive? And if memory is the best indicator of conscious awareness, why not live memorably? If you can help any

child, or any other fellow human to live memorably, through example and not precept, wouldn't you want to?

It takes a lot of work just to keep a human body alive. However, once that's taken care of, it doesn't take a lot more energy to have the effort count for something more than continued respiration and metabolism.

Chapter 4: From Here to Indemnity

In keeping with the pattern we have established, let us summarize where we have been to see if our exploration so far coheres reasonably well. Recall that the stated theme of this book is not complicated. We are simply concerned with the prospect of living deeply satisfying lives. We are relying only on ideas that are freely apparent to everyone, requiring no particular faith or belief in life beyond the scope of our own mortality. Most particularly, we are seeking wisdom in using the finiteness of physical existence as the lens for an enhanced lived experience. At the same time there is no need to diminish or dismiss any system of faith, except where such a faith acts in direct opposition to the living of a meaningful and satisfying mortality by others or ourselves. For this reason, we are avoiding the use of the word “spirituality” as it is too elusive a term and tends to comfort people into assuming agreement with paths and people they have already decided are like them. Using the term “spirituality” in this discussion, in fact, weakens the concepts and analyses we are concerned with.

We have discussed two useful qualities of our effort within our mortality that guards against self-deception or outside manipulation: attention (conscious awareness) and intention (working for goals one considers to be worthy, from an end-of-mortality, or “obituary,” perspective). We may well use the keeping of a journal to help in living intentionally and consciously if words and stories are our preferred modes of reflection, and since you are reading these lines, that is likely the case. We can use a few tests to take a measure of whether we are doing our best. The primary test is memory. Can we remember enough particulars of our own life story, from the past months or years, to

reasonably account for all the time that has come and gone? And if so, are we satisfied that we put forth effort to live out what we intended?

In the previous chapter, we took this self-same appraisal of the life we live and examined the challenge of how a good society might think about its children, considering them as recent models (but otherwise the same) of mortal beings that we adults are. We will, in subsequent chapters, pursue some other universal human experiences, looking for further wisdom concerning our own mortalities. However, at this juncture, it seems inviting to search for some historical indication of how we modern humans have seemingly become easily seduced into living in such naked contradiction to the fact of their mortalities.

How have we come to be so mesmerized by the latest and greatest (gadget, gossip, celebrity) that we find ourselves unable to account for our own lives as we live them? Put another way, we might say that we have totally discounted our mortality (our present) as we experience it while at the same time we are more cut off from historical precedent as we allow the future to play out. This leaves us with little to call our own. If the only demonstrable trace of being here is our story, we are leaving ourselves a vanishingly small potential for that mortality to be either intentionally lived or memorable. How did we come to be so fascinated with the flickering images on Plato's cave, and not on the experience of living?

Of course, we could easily indict all manner of the most recent fads in popular entertainment. That criticism has a long but fundamentally flawed history. The main difficulty is that everyone who pretends to wield the authority of "tradition" versus fad always presumes that their own particular youth witnessed the last hurrah of virtue and responsibility and authenticity. As a result, one can never find these jeremiads to be truly trustworthy. Whatever truths might be

nestled among such analyses, they usually proceed from the writer's sentimentality, and their appeal extends to those whose age tightly brackets the author's. We can never go back to some supposed golden age, asserting that we have successfully revived the core beliefs of the majority of individuals.

This being the case, it could be instructive to trace the evolution of some aspect of our contemporary culture so pervasive that we are not normally aware it was invented at all. Let's see if we can imagine the consequence of that aspect of our cultural inheritance by considering what life might be like had such a tradition not become an axiom of modern society.

What about the concept of protection against risk? Where and when did the economic concept of insurance first arise? Well, I don't know, and no one may ever be able to declare with certainty the very first instance of something like an insurance contract. We do know that the concept of shared risk, or of assured indemnity against catastrophic loss, reaches back to ancient Babylon, at least. Legal provision for indemnity against loss within commercial Mediterranean shipping has been found recorded in the Code of Hammurabi. It may be unnecessary to explain and defend the invention of risk management for most readers, but to do so sets out an important premise for the interplay between our economic lives and our understanding of mortality.

Let's presume, for clarity of argument, that the financial instrument we call insurance arrived with commerce and in particular with sea-going trade. Until recently, historically speaking, going to sea in a ship was an extremely dangerous proposition. Without a reliable mechanical clock that could withstand the rigors of extreme environments, you had no idea where you were in terms of longitude, and without a map of land masses located at various latitudes and

longitudes, you could run aground anyway.⁸ In ancient times, any sea-travel that didn't keep the coastline within sight was, potentially, suicidally foolhardy.

A cargo ship of the sailing sort represents a phenomenal capital investment. How can one conduct trade? If you are a nation-state, you can build a merchant marine fleet using the national treasury. And if you lose ten percent of your fleet every few years, that is part of the price of business. If your country (you are the monarch, by the way) is the only producer of the highly-valued firkin-festooned widget, or perhaps you are sitting on the world's major source of a valuable mineral, like unobtainium, then you factor your losses into your commodity prices and charge what the market will bear.

However, if you are an aspiring entrepreneur, perhaps being lured by the profits in, say, the spice trade, what do you do if you are not already fabulously wealthy from some other source (read: inheritance)? If you are only wealthy, and not impossibly rich, perhaps you form a joint stock company with several other well-heeled friends, pool your capital and distribute shares of stock, representing the proportion of the start-up money each has invested, and you use the entire pool to contract a ship-yard to build one or two ships and also put together enough operating funds for the first year's voyages and commodities. Certainly, there are lots of other details to fit in here, including having some sort of agreement with the trading partner, arrangements for ground transport, distribution, storage, and retail. Not the least of your concerns, for the entire joint stock company, you will need a skilled ship's captain, navigator, and an entire crew. If you and your associates

⁸ To best understand just how important and longstanding these problems are that have plagued sailors, see Dava Sobel's *Longitude*.

could assemble enough capital to do all these things, you could begin your shipping business, and profits-above-cost would be distributed to the shareholders as those funds became available, again, in proportions represented by your percentage of the total shares distributed.

If this sounds complicated, it is. There are a lot of details, requiring contacts, risks, and expertise in many arenas. Furthermore, this enterprise is essentially being invented on the fly, entailing more risk at each turn. It was quite possible that either a commodity source or its market could shrink to unsustainable levels, for natural, political, or other economic reasons. But one risk outweighed all the others if you were part owner of a fledgling shipping company. You would not be able to absorb the direct loss, to pirates or storm or faulty navigating, of your entire fleet of one or two ships, still having any hope of surviving financially to see another day. And, as the reader has already long since figured out, that is where managed risk comes in.

If on the other hand, say a dozen small trading companies pay into a single fund to manage the risk of any single catastrophic loss. Any member in the organization could recoup all or part of their capital investment in the event of individual loss. Now, getting into shipping could be a reasonable business venture even with its sizeable risks. In other words, if individual companies, and not just nation-states, were to get into the open-ocean shipping and trading industries in any substantial way, the creation of shared risk financial instruments was going to be essential. This is such a profound development in economic history, one might well equate it to the invention of money itself, whereby one first becomes enabled to make purchases through symbols of wealth, and not by carrying around entire grain silos to purchase some draft animals.

The development of joint stock companies (a kind of managed risk in itself), as well as the elaboration of actuarial tables, can be said to pave the way for all commercial activity. This brings with it the rise of numerous professional classes for making actuarial tables, for managing investments of every kind, and basically for every stripe of required service that is not either the production of the commodity itself, or its physical transportation. Within this growing web of economic interaction, of course, everyone expects to be paid (and on time), and no one expects to be putting anything more at risk as the venture proceeds than they agree to at the time they enter into contractual agreement.

An accountant, for example, may lose his job if business is slow, but he does not agree to an increased risk of drowning or suffering from scurvy by virtue of his day job. Of course, lots of people can then become part of a working economy without needing the kind of personality that thrives in and seeks out environments of extreme risk, such as being thrown overboard, or dying of exposure. Not many of those types crop up in any given population. Those rare individuals are called brave and heroic. Or greedy and crazy.

Now everyone can take part in a commercial venture that has a real, but measurable, risk of failure while being indemnified against total loss. Well, almost everyone. For the ship's crew and captain, the whole insurance thing is an abstraction. For them every trip is a binary affair. If they complete their journey, they get paid according to prior agreement. If they don't, it is game over.

I would be the last person to rail against the creation of the varieties of mutual assurance combinations that make up the modern world. I, for one, would not likely have been one of the courageous (or daft) hearties either to make his fortune or go down in a blaze of glory and guts. I did do some reckless things in my callow youth, and a few

times things went wrong and I was injured. After a certain age I came to associate these ill-conceived acts with pain, something I have never enjoyed. It does not make me feel more alive though I respect those who say they have had that experience.

Just being in a physically precarious situation is also extremely unpleasant, even worse than physical pain itself. For me the worst experience is heights. I'm not afraid to fly in airplanes, and I'm not afraid of elevators or the inside of tall buildings. Generally I trust technologies (skyscrapers, planes, bridges, even amusement park rides) that are supposed to transport me high above the earth. What I don't trust is myself. My closest brush with falling from a great height came as a young man when I was (stupid! stupid!) sent up a very high extension ladder to install a radio antenna (I was an electronics technician for a communications company), and due to several bone-headed "labor-saving" shortcuts, found myself for several (eternal) seconds wavering perhaps a centimeter from certain death. I don't think I ever experienced naked terror to such a degree before or since. And I didn't learn a damn thing, except never to do exactly that again. Ah, forgive the detour, but this unwelcomed flashback says "hello" on occasion.

To recap, then, we have put together a serviceable account of the development of managed risk by leveraging capital, whether or not it is historically precise, and we have an elementary story line that, if it doesn't explain everything about why the global workforce does the sorts of things it does today, we have a story that *can* account for why we can have our systems of production and distribution, as well as the professions that drive production and distribution.

This is a jarringly abbreviated telling, to be sure, not to be confused with fine-grained historical documentation. It also is not in any way

intended, thus far, to be a moral or ethical story, and in this little outline there is no mention of how we account for all the truly terrible things we know that have been committed through the powers unleashed by these economic instruments. My point here is not to tell the worst story of how we got here (modern trade practices) and what it is we're doing, but the *best* story I can construct. It is that best story that we shall vivisect. For the moment, forget all the obviously bad things everyone can agree we should eliminate or change. Forget colonialism, forget robber barons, forget every depredation that we hear about daily. Let us assume that we could somehow spread good-paying jobs to everyone, by doing what we are doing, and not kill ourselves and the planet in the process.

Humor me for a moment. What could possibly be wrong with this story, told as the perfectly ideal version of market capitalism? I have purposely produced our cultural story as an impossible ideal because we need to reach this ideal, this level of optimal simplicity, in order to be able to ask questions about what it is we actually do as mortal human beings. We wish not to be overwhelmed by the patterns we have received from our predecessors. Nor do we want to be overrun by well intentioned critics who start from the great "given," presuming that what we are doing is what we want to do and what is proper to do, but like any running machine, you've got to take care of maintenance. No, we are not seeking merely to tune up the vast and reflexive systems of mortal action that create such great expanses of unknowing, and which result in so much habit and so little intention.

Only at this level of simplicity do we become endowed with an imagination of possibility when considering what our mortalities add up to. Only from here can we ask rudimentary questions about our routines and activities without thinking that those questions are

embarrassingly naïve. We are almost ready to demystify ourselves as economic creatures, but we will need to take yet another departure in our developing thread. We need to unpack one more aspect of contemporary material living in our reckoning of how we express our mortalities. It has to do with technology.

I like to take my students on this journey. At times I begin by asking them some definitional questions, not as a way of embarrassing them in front of their peers, but more as a way of fracturing habits of thought. So let me ask you, the reader, some of the same questions. Here is a favorite: If you casually overhear a conversation or perhaps a news segment, and you heard the word “technology” used, what comes to your mind without any further information? If you have responses similar to my students, any of the following may be among your first associations: computers, new communications products, advances in medicine, any complex devices whose inner-workings are invisible, entertainment, robotics, military, advanced scientific research, source of wealth, status, new, the future, alien, virtual reality. The list could be extended, but this is sufficient. Let us add to this exercise a quote from Arthur C. Clarke, the science fiction author, futurist, and the person credited with first conceiving of the idea of satellite communications: “Any technology, sufficiently advanced, is indistinguishable from magic.”

Is your mind filled with images of gleaming gadgets, new products from the likes of Apple and Sony, but also with all those future-world visions Hollywood has thrown our way, both the utopian and the dystopian, and how breathtaking it all is? It is at once empowering, because, well, think of what you could do! (You’ll have to answer that for yourself.) However, it is all a bit overwhelming and even frightening because you most likely don’t know how any of these devices you already use operates, and you are depending upon others (engineers and

scientists) to make sure that they are reasonably user-friendly and fault-free.

I recall, as an undergraduate student, purchasing one of the first programmable portable calculators (the SR-52 from Texas Instruments) and reading in the fine print of the thick programming guide that the company was absolved of any responsibility incurred through the use of the calculator. In other words, if you were an engineer who used this calculator to design either a bridge, or a power distribution system, or an airplane, and your project failed catastrophically, you couldn't hold Texas Instruments liable for all the ensuing damage, even if you could put together the evidence that showed it was the result of a hiccup in your new calculator and not merely that you had misplaced a decimal point. Few people realize how little responsibility technology companies bear for the truly arcane and invisible things all of our high-technology devices do. Instead, we only hear about the big, obvious stuff, like exploding fuel tanks, rechargeable batteries, or automobile tires. But the stuff that doesn't physically move or catch fire we generally overlook and hope that the next version or update will make be better.

Now that we are pretty sure we know what people often think of when discussing technology, I like to ask my students to decide what technology *is not*. Give some examples of things that aren't classified as technology. What is the difference? Are things only considered technological if many people might be able to use them, but almost no one knows how they work on the inside? Is something considered to be an example of technology only if it is something we couldn't make for ourselves? When put in this light, most people can begin to see some kind of a logical trap coming. (I try to allay my students' fear, if it is the beginning of a semester and they are not used to me, telling them that I am not trying to set them up to look foolish.) So, at this point,

people will begin to hedge their initial assertions, and try to make room for some broader definition of technology, but usually, unless they have thought seriously about the topic before, they only give an increasing number of exceptions, but not a useful and generalizable definition.

We can get a most powerful understanding of technology by turning to a brilliant historian and philosopher, Jacques Ellul, and his masterwork of half a century ago, *The Technological Society*. In this book, Ellul tells us that the root of the word “technology” comes from *techne*, the same root for “technique.” This is more than a bit of etymology. It is foundational. Any time we conceive of a new means of doing anything, and we routinize that method, we have invented a new technology. There may or may not be any new physical device involved, let alone a printed circuit board or a purchasable computer operating system.

What might qualify as revolutionary technologies?⁹ Of course we have communications technologies, including the telegraph, the telephone, the radio, and the television, and all these required the invention of a new physical device or devices. However, what about Morse Code, through which telegraphs are able to encode meaning? What about semaphore signaling? What about American Sign Language? What about the printed word, the written word, or the spoken word, or cave drawings? All of these phenomena represent techniques. They must be learned and then utilized.

If we can come to this appreciation of the human species as a toolmaker, that everything we do beyond just grabbing something that

⁹ Most likely, these technologies can only be seen as unavoidable in hindsight. If we could remove our ability to imagine possibilities from the tyranny of “what is,” and transport our sensibilities to possible former epochs, none of these technologies is either obvious or inevitable.

appears edible and putting it our mouths had an aspect of cognition, reflection, projection, and invention about it, we realize that every code and habit and method we develop is all of a piece. It is all technology.

While the majority of fashioned, physical tools were relatively easy to understand up until the nineteenth century, today the inner workings of many of our devices and processes are not transparent. Despite this difference, a common social element remains in all technologies. Once tools become commonly used, almost everyone who uses them forgets their inner operations and relates to the devices only as the end user. Even if I do know how my microwave oven works, when I throw something in to warm it up, I am only thinking about pushing the buttons to get the same quick task done in the same way I always do. I make vague guesses about how long to let it run, not by making reasoned projections on the physics involved, but by comparing it to the last time I put a cup of tea in there. If I am a carpenter, I may know how my electric drill works, but when I choose a bit and apply pressure, I am working only by previous tasks and the feel of the bit in the wood. Of course this only makes sense. If every time we began a task like boiling water or drilling a hole we had to reconsider everything based upon first principles, we would never get much done.

The problem occurs when we become doers of a task alone, conflating intentional action or choice with the mere operation of our tools. This confusion of task and tool is not a brand new phenomenon, but it has reached such a level of reflex and seamlessness that most of us don't even take notice anymore.

This is where our inquiry is taking us: the more layers of unconscious technique we fold into our individual lives and the activities of societies and cultures, without ever stepping back to take notice of what is inherited, assumed, and patterned as obvious, the less

able we are to ask what the point is to all our doings. If we never step outside of habit, we lose all ability to petition our mortalities to discover what we would truly intend our time to stand for. And it is not just individuals who forgo this greatest of inquiries. Whole societies can lose their sense of intentional direction with equal ease.

This inversion of conscious attention, where the worker is an appendage and a slave to his tools, has been an enduring archetype ever since the introduction of the factory system (which predates the assembly line). As soon as we had industrial societies where individual workers produce parts of things, and especially since they were paid by the hour rather than by the artifact, we too became interchangeable parts in a mechanism of production. In fact, the only true differences between an assemblyline worker and any line machine when production is fully routinized are that the laborer must be paid but can be fired, and he or she can suffer the abuse of an angry foreman. This redefinition of work and worker, of tool and task, of technique (system or technology) and product had its most absurd evocation in Charlie Chaplin's *Modern Times*, but that was when the workplace being parodied was a mechanical assembly line.

Every age, every society, every workplace has been pilloried by satire at one time or another. There has always been the idiot king as well as the court jester. High society and low, alike, have their fair share of buffoons or archly self-important characters unable to recognize themselves for who they are. Pretenders, or posers, have always been among our favorite comedic characters because we have a sense that whatever comeuppance the author has in store for them is only fitting. But our characters could even be lovable and we could still find room

for their humiliation and embarrassment for our entertainment so long as that was a passing state and not a final judgment. That is why Ralph Cramden in *The Honeymooners*, and Dick van Dyke in his eponymous show could both be made out to be fools, but it must only be temporarily. Ultimately we like these characters, sometimes hapless, but salt-of-the-earth folks, trying to do something with grace.¹⁰

Only with the production of the British television series *The Office* and the American version by the same name have we begun to reflect the still more absurdist post-modern condition of work, production, and the tacit assumptions that pass for the social currency in an economy. The sad truth, which makes the episodes both funny and painful, seems to play off of the fecklessness of individual behavior: a clueless manager and longsuffering staff whose own foibles provide moving comedic targets for each other. However, that is only the most superficial reading of why these shows work comedically.

In *The Office*, our wincing while laughing doesn't come only from someone who thinks highly of himself being made the fool, or from a toadying second lieutenant being outed. If any of them were involved in anything that had significance and real effect, like Ralph's driving a bus, or Norton's working in the sewer system, then we could find empathy in the minor jockeying of the working class for relative advantage mimicking the bigger floundering of those among the high and mighty. Our hearts are really with the characters of *The Honeymooners* and *The Dick van Dyke Show*. *The Office*, on the other hand, is propelled by the overarching meaninglessness of the entire

¹⁰ In *Modern Times*, Chaplin is neither self important nor a buffoon. In fact, the elegance and simplicity with which he sees through the absurdity of the workplace reveals the machinations imposed upon him seem all the more surreal.

enterprise without anyone really taking notice. The joke isn't simply how these characters go about their lives; rather, it is that they bother to go about their lives at all. This is the closest thing, it would seem, to a kid's ant farm, sealed in glass, with no way to escape or affect anything outside, but with everything inside taken care of.

The employees of *The Office*, besides their deliberate jokes played at each other's expense, and their little dust-ups, have dissolved the distinction between their tools (technologies) and themselves (what they do). The point isn't to be an *essential* component in an office-paper supply company, which might provide the paper upon which some profound statement of moment will be written, if that stretch could even be made. It isn't to craft an artifact of distinguished beauty. Nor is it to train people to be effective workers or managers. The point isn't even selling undistinguished commodities. The point of all their doing is merely the maintenance of the means of doing, which for them happens to be the memo, the processed spreadsheet, the forwarded message. In comparison, Charlie Chaplin's, loony, machine-driven, hourly wage-slave seems the epitome of creative, self-willed action.

We began this chapter asking where the idea of insurance originated and moved from there to see what this financial instrument promotes, both in commercial economies and for new classes of wage-earners. We saw that over several centuries, amortized risk allowed for the evolution of the kinds of economies where we find our support and our home to this day. Then we moved to a discussion of tools and technology within these financially enabled corporate entities. We did this to make the point that once technologies become widely and regularly used, we, the workers, easily identify our work and ourselves

with our tools rather than with some product or outcome. And finally, we come to protect our technologies because they provide for us.¹¹ Our tools and systems, then, supply a further insurance against having to meet up with the unmediated physical world where Darwin will have his due.

And what is it, ultimately, that we are striving for? Well, let's get to that "ultimate" in a moment. We can say what we are *penultimately* striving for, although we often confuse this for something else. What we *think* we want is security. That need for material security, we are convinced, is what really keeps us awake at night and, if we could get that squared away, we could blissfully carry on. It is certainly true that living with great insecurity, whether that means living in a first world economy without health care or living in a third world economy without clean water, is an extreme privation, and this psychological pressure alone has been accurately equated with a disease state. So, the point is not to say that a desire for security is wrong headed. Rather, the question is whether, were we to remove the stress of physical insecurity alone, would we bring about a productive, creative, and blissful social psyche or personal satisfaction. If this were true, one might expect the winners of lotteries, as well as the various anointed elite of the rich and

¹¹ Of course, as any cubicle worker knows, the computer giveth, but the computer taketh away. Yet we keep hoping. If we are kind enough to our systems and technologies, if only we are loyal enough to them, and continue to see to the welfare of their (our tools') descendants, then certainly we will be spared the ignominy of being discarded as another replaceable part. It is a desperate game, and we play it without ever asking if what all this doing accomplishes is not more doing in the service of the doing-enablers, the tools themselves. And the pile we keep scrambling up in an effort to stay above water is not the calving glaciers of machines, but it is the people who would also run them. Nice work if you can get it.

famous, to be far happier and more psychologically stable than the population at large. Once an individual has passed a rather minimal level of security and comfort, studies have repeatedly shown, there is little, if any, increase in one's sense of either happiness, or life satisfaction. Furthermore, the small blips of reported joy with influxes of material wealth are notoriously transient.

We have been working toward the idea that the human inventions bringing us security and wealth are also responsible for giving us an overarching expectation of insulation from injury and want. When we implicitly assume that the mere avoidance of want and death constitutes our supreme and most worthy goal, we neglect to live fully the only life everyone can agree we *do* have. Neglecting the entreaty to do excellent things with living, and instead concentrating one's efforts in avoiding death, *this* is the real poison of the modern and postmodern ages. It anaesthetizes us from the most significant teaching and learning opportunities we have as mortal humans.

Remember, we have been performing an experiment of the imagination, which can have a profound effect on our individual and cultural choices. So let us return to a question asked earlier. What *is* an appropriate vision of a truly better world, one we might hold up as worthy even while we set to work remediating the injustices within our current global community? Well, certainly the ability to live as aware individuals, where doing the good work of trying to fix the current injuries, is a noble personal goal within a collective society. In point of fact the realities of injustices, inequities, and injuries can often stand in as a purpose for the thoughtful humanist. But suppose that we weren't hungry, or ill, or subjugated, would there still be a point to the efforts of living, given that we would still be mortal?

Now, you may think that we have backed into a philosophical corner here, and that the only possible answer would amount to something masquerading as evidentiary, but which at its heart is another religious dogma. So, do I have any underlying concept that I am sneaking up on, acting as though I am merely a happy rationalist with a tricky way out of the perpetual philosophical dilemmas? Well, sure. I have ideas. I have lots of ideas, but I cannot proclaim them as *ultimately* being true (nor do I wish to). In fact, my favorite ideas are more musings and intimations that have had resonance for me through many years, many life experiences, and through reading and hearing the best thoughts of individuals and wisdom traditions that I have been able to find.

Let us not attempt to outline all the reasons why a temporal existence, of itself, is a good thing right now, but just let a few observations suffice. When I did address this question in *The Persistence of Visions*, I found that the most penetrating ways to explore the nature of first principles, without resorting to religious dogma, were found in metaphor and paradox. The reason seems to be that ultimate realities lie beyond the technology of human language, used directly. Language springs from direct experience. It is derived from events. To seek for understanding either beyond or before causal events, language must be pried from its temporal and physical moorings. Both metaphor and paradox have the potential, at least, to launch language towards other possibilities.

Again, this reasoning also suggests the use of metaphor and paradox in even attempting such demonstrations of experience of any transcendent state. The only hope of using language in the service of experiencing that which is not merely apparent, is to either collide terms obliquely or directly (that is, through metaphor or paradox) in the

hopes that the fragments of collision refract to illuminate hidden realms. Indeed, a useful metaphor in describing this hopeful interaction between the qualities of the apparent and the implicitly transcendent through collisions of nominal language might well be the use of known particles, smashing in a high-energy elementary particle collider and possibly revealing a hidden realm beyond the ordinary in the ephemeral debris. And while this exercise can be wonderful of itself, one of the boundaries established early on was that we wouldn't go there in this book.

If you can go with me this far, yes, there are some things that might be said of a good life. If I had to reduce it to one thing within the boundaries of our discussion, it would be consciousness of one's living. Again, if that sounds Eastern, I suppose it is although I don't claim to be an adherent of any religion, and I don't even engage in meditation in any of its usual formal definitions. Does all this sound too self-involved to provide any larger vision of why living, and doing so consciously, is worthy of the effort, both by the individual and for society itself to provide the foundations for such individuals to thrive?

Having true consciousness of living as a goal for individuals and the global community is only a solipsism if we are wedded to the model of mortality we acquired with the positivist empiricism of the Scientific Revolution. That standard model presumes everything can be described as arrangements of "self" and "other." There is "this," right here, and "that," over there. One acts *on* the other. The counterweight to this formulation of subject and object would be Buddhist writer Thich Nhat Hahn's concept of interbeing.

In my own imperfect experience, the ability to be conscious of the life one is living and of the life and qualities one wishes to express is directly correlated with the ability to experience and express gratitude,

empathy, love, and kindness. It seems rather obvious that one cannot care for the world if one does not fully become conscious of the experience of being alive, in one's body, in the world of others who have equally valid experiences of their own aliveness, to the extent that they can exercise consciousness, and have agency for their own choices.

Does achieving this state (were everyone able to do it) stand for some final purpose, some apotheosis? Who knows? Let's get there first. Then we'll know the next step. This is certainly a level of individual and social existence that moves beyond the reduction of suffering and inequality although we are nowhere near solving those obvious pains and privations. But we will never get any closer to even solving obvious inequalities so long as our most grand vision of existence is the avoidance of death, and that singular fixation distorts our generous possibilities beyond all recognition making real humanitarian striving purely impossible.

In the meantime, why not have a conscious embrace of our true and connected mortality as the best goal we can currently imagine? It offers a more expansive vision for healing the obvious injuries so many suffer right now. And surviving to see another day seems kind of pathetic if there isn't any point to that next day other than yet more days. Life is not merely the absence of death, and life without death has no meaning.

Please indulge me in one final observation. To be sure, it is another way of fashioning ideas already explored in this chapter, but this formulation may prove useful, and it brings around full circle to the original investigation around which this chapter is organized. One signature of contemporary culture is a zeal for certainty, especially in times that would surely benefit from less self-assurance. While the development of modern managed-risk economies may not demand this

avidity for certainty, it is easy to see how these techniques, technologies, systems and social structures that have paved the way for our current means of production, consumption, and entertainment have also paved the way for our addictive need for certainty. And we do demand it.

We demand it of our medical providers and our oversight experts, from the NIH to the FDA, from our managed care corporations to our family doctors. We demand it of our politicians. Heaven forefend that someone should address a policy issue with the public response of “I don’t know yet.” We want a president who knows what he knows and believes what he believes, one who sticks to his guns whether he is right or wrong. We equate knowledge and conviction with courage, when nothing could be further from reality.

If “conversation” is an apt metaphor for living in all its dimensions, which, I confess is my personal take, then certainty signals the end of conversation. Life occurs in the interstices of paradox, in the essential tension between dichotomies. In the conversation of difference, there is life and there is movement. Some people seem to be of the opinion that certainty is the treatment, the cure, for anxiety. It isn’t. Both certainty and anxiety are forms of paralysis. It may go without saying, but I’ll say it anyway: to embrace one’s uncertainty is to embrace the state of one’s partial knowing. It doesn’t mean that we give up hope. It means that we can always be hopeful.

Furthermore, it doesn’t mean that we do not act. Absolutely not. We must do our best, and if action is required in a given circumstance before one has every scrap of information, then we hope that we are acting in the best way, given the best of our understanding. To act because we sense that it is proper, and we have recognized and accounted for all the ways we might have been swayed by fear or greed rather than expansiveness and empathy even while understanding that

time may reveal an error, and to accept error with humility and to learn from it, this is the true measure of courage.

Still, I worry that these times are breeding a fascination with certainty in opposition to wisdom. It is not only in politics, but also in many formal religions as they are professed and practiced. Banish doubt. Know you are right! Don't stop at belief or even faith. Go right on to knowledge! These are martial mantras, and yet they are applied in politics, in religion, in business, in our dealings with our world of human associations and in our interactions with the physical world. It celebrates the reflex response above the reflective consideration. It substitutes mere emotion for feeling. It lauds action, not as a necessary consequence of partial information and a searching of ambiguities, but simply because it satisfies egotistical impatience to "just get something done and get on with it." And it debases the heart of unknowing, the only position from which we can learn anything.

The cult of certainty has no response when asked why life is better than non-life, because life is only the elimination of death. Certainty provides no breathing room for awe and wonder because everything is only as it seems, as we predicted, as we demanded. We cannot see beauty if our eyes can only detect what we have already concluded is before us. This is why I shudder that humans ever invented technology to subdue risk. It prevents us from petitioning our individual mortalities for what wisdom might be found, what life may be discovered: our own!

Chapter 5: A Fate Worse Than Death

(A Brief Interlude)

I had an interesting encounter with my twins a few years ago when they were seven years old. We were watching one of the early Harry Potter films together on DVD. Yes, they do love their Potter. Almost certainly I don't need to provide an introduction to this series or the characters, but in case you've managed to miss the public phenomenon, the stories largely take place at the Hogwarts School for Wizards, and they follow the lives of a handful of central characters, most notably the exploits of three students, Harry Potter and his best friends Ron Weasley and Hermione Granger. Along with the other students at Hogwarts, the three hope to become full-fledged wizards. And they will, so long as they learn their skills, their spells and potions, keep the codes and rules, and avoid the pitfalls that go along with great power. Of course, there are plenty of other hugely emblematic characters, including the vainglorious, the malevolent, the flawed-but-honorable, the magisterial.

Of the three friends, Harry is the most signally gifted, Hermione is the most intellectually brilliant, and Ron is a good and trustworthy friend whose early attempts at inducing magical effects often backfire. This is to set the stage for a single line uttered by Hermione. Harry and Ron are headed into trouble on some mission of great import, one that entails both danger and serious abuse of strict school rules. In a fit of pique and some real desperation to protect Ron and Harry (and herself) from their noble but decidedly foolhardy path, Hermione says: "Stop! You're going to get us all killed! Or worse, expelled!"

Every time we have played this scene, my son, Harold, cannot keep himself from commenting, “And of course what Hermione says is totally ridiculous because there is nothing worse than dying!”

Now, I have tried telling Harold the underlying truth of what Hermione is trying to say, and he listened, but he was a few years too young to think of this interpretation as a real and sensible possibility. After all, Harry, Ron, and Hermione, as first year students, are twelve, an important boundary age for the first tentative steps in leaving childhood behind in many cultural traditions. Seven years of age, in any culture worthy of its name, should still be well inside the boundaries of childhood. So, when I tell him, “Actually, Harold, Hermione is saying some things are so important that doing those things well, or trying to, may be more important than your own safety. And, you know, for these students going to wizarding school is the thing they want most, and if they get expelled, then they can’t do it anymore. So maybe, for Hermione, the worst thing she can imagine is to be expelled from her hopes and dreams.” Harold would listen (as long as I kept it short, and the DVD was on pause), but I could tell he wasn’t really buying it yet.

Still, if one thinks of any epic story that has enlivened and given meaning to cultures through their folk wisdom, many times encoded in religious stories¹², they always involve what mythologist Joseph Campbell referred to as the Hero’s Journey. And, of course, Hollywood has always been on the lookout for any tellings or retellings of such stories. There are a number of good reasons why these stories have had widespread appeal throughout history and cultures. Some philosophers

¹²Like the Vedas, the Ramayana, the Bhagavad Gita, and virtually all creation myths, from the Sumerian story of the goddess Inanna, through the Greek and Roman, and certainly all the Biblical stories used by the three great monotheisms

and psychologists might say that the central figure, male or female, is standing in stead for us, confronting our greatest fear: the possible end of our own mortality. In the quest or challenge, there is no certainty of outcome. (My son, Harold, was always certain of what outcome must happen, regardless of risk: the hero prevails.)

However, having the hero always win doesn't work as a durable cultural myth for the adults in the population, or it usually isn't sufficient. That's because if the hero is standing in for us, we don't feel so certain about the outcomes in our own lives. We already know, or know about, lots of people who tried to do the right thing and not do the wrong things, and yet the final result seems to have been unfair. The person was defeated. They lost everything. They developed a terminal disease. They were unjustly imprisoned. They were defamed, or cheated, or demeaned in some way. And they don't always live to see a better day. So for a hero's journey to work as any sort of living allegory, there needs to be a real risk of tragedy. However, in a heroic myth, it is pointless to have the central character be defeated or killed by a random event that has no significance to the unfolding journey even though that seems to happen in real life.

There also needs to be a taste of the hero's inner life. We want to know not what decision the hero is going to make when the chips are down. That is almost not part of the climax. It is really a hint at denouement because the hero will choose to act according to principle, according to quality and virtue. No, the really fascinating and timeless characters don't simply act. They weigh their options, as we would do. They make projections at the most extreme levels of anticipation and anguish, and they even try to talk themselves into alternatives. This is why Hamlet is remarkable: not because he is superhuman, but because he is so profoundly human and alive to that ultimate humanness.

If there is a single point, a single lesson from every literary and mythic journey, it is the abject negation of the idea that there is no fate worse than death, and it isn't just a painful death versus a gentle passing. In fact, lots and lots of fates are worse than death, but they all involve enduring a pointless life first. Perhaps that is why, in popular culture of the last century and a half, another favorite character is the petty thief, or the wastrel (he can't be too malignant, or the person is irredeemable), who, at the very last makes the only selfless act in his life up to that point, by running into the burning house to save the child, or by confessing and taking the place of the wrongly condemned, and sacrificing himself in the process.

I have sometimes wondered why this trope has had so many imitators, and the only thought that makes sense is that this character pushes away the chance to live according to principle or virtue until the last possible moment, and then he or she passes the test and passes away at the same time. Why is it a good plot move to have him die right then? Because if he had continued to live he would probably continue to be a petty thief, or a wastrel, or a cheat, and that wouldn't work, so we need to clear him off the set before he goes back to being a selfish and morally grubby individual. In pushing the opportunity to live fully and well until some last instant, this character sort of holds the door open for anyone who may not be too happy with his or her own life, given a little reflection.

Dramatic entertainment, including our religious myths, has always served up versions of amplified life stories. With the exception of absurdist forms, there are in these magnifications types and archetypes replete with guilt and redemption, temptation and resistance, passion and compassion. Unless we seek only diversion in our drama and literature, these have always been intended to frame and to make real

the elements of our own living and decisions, which we might otherwise miss because we are habituated to see our own lives as ordinary, as unexceptional. Certainly we can understand the ultimate significance of the life of a saint, or a world figure like a Mandela, or a Lincoln, or a Gandhi. And we are glad that these most exceptional people were present to answer their calls when they came. But the rest of us, well, certainly nothing of moment hangs in the balance depending upon *our* summoning courage or taking the easier path in any particular of my day-to-day existence, right?

If we really feel this way about our own mortality, then why would we care more about what we intend by our daily living as opposed to our material comfort or security, or the privilege we may aspire to for its own sake? We wouldn't. There is no reason to live one's life consciously, intentionally, or memorably. If the present moment is primarily something to be endured, a mere passage to future moments, when do we suppose that all this waiting will suddenly become significant? I would submit that we should not live *any* part of our lives as merely preparatory. Certainly, preparation for other paths and experiences is an essential part of living consciously, but if we can realize it, preparation is no less real than arrival at a goal. Herein lies gratitude, and gratitude is the fullest form of living. Gratitude is its own reward.

Chapter 6: The Body as a Hologram

So far we have examined our lived experience while looking at patterns of inattention that intrude upon personal interactions, the inauthentic designs of public education that interfere with children's learning, the conflation of longevity with living that diffuses our awareness of the present, and the servitude to tools that leads to a misunderstanding of our purpose. There is no slight of hand in this. If there are illusions involved, it is only in the habits of mind and culture that have accrued, through the mechanisms of commodification, to stand in for actual needs of the physical and social self. We seek to remove both commodified practices and their reflexively offered justifications to distinguish the insights of authentic needs from the habits of replacement addiction. We have also questioned the adequacy of efficient satisfaction of even genuine needs of the human organism when confronted with both the limits of expansion and the opportunities of projection and imagination.

We have resisted the excessive use of analogies and metaphors in order to come at the issues directly. We have also freed ourselves from the confounding issues posed by religion and spirituality, which can, themselves, all too easily become surrogates that salve but don't meet our real need to locate our intentions in living consciously. This direct approach has often left me, the writer, wishing I could take refuge in ambiguity to avoid coming off as either haughty or tedious. In place of using ambiguity for my own comfort, I have chosen instead the saving grace of brevity. It isn't too presumptuous in so short a work to urge that the cost of living consciously and intentionally is not too high,

especially since it promises a memorable mortality and a bright awareness of our gratitude.

All this being said, metaphors can be powerful tools for the imagination, and at times they can awaken wisdoms that are unavailable to the most literal interrogation. We often find ourselves failing when we use only the literal language of description while trying to convey an experience that transcends the mundane. If language first developed as a utilitarian means of naming things, or for giving task-related instructions, then how would we use the same bookkeeping lexicon to instruct someone about how it feels to be overcome with affection, for instance? How do we arrange words to convey, literally, the experience of being carried away by music? Of course, we don't.

For the most part, in such instances, we are hoping that our conversation is occurring with another individual who has experienced the same ineffable awareness. If we use the word "love," for example, with some circumstantial description, and with the proper framing rhythms and tonalities and even body-language, we hope the other person will be able to summon up a similar experience and confirm that she or he "gets" us.

If it seems obvious that we are not striking a resonant chord for our listener, we may give up and find a way to remove ourselves to a safer conversational harbor. Or we may try elaborating some of the other things we experienced in connection with, say, falling in love: elation, confusion, losing track of time, an abrupt loss of a sense of anything else going on in the immediate time and place, or even an intensification of everything that was simultaneously occurring. We might try any of these things in searching for a signature of resonance with the other person even though none of those other experiences, even physical excitement, is the sensation we want them to understand.

When all description fails, we are sometimes moved to make substitutions. (“Shall I compare thee to a summer’s day?”) Only in deliberately turning away from a direct confrontation with our subject, looking instead to words being used for nothing like their utilitarian meaning, can we hope to sneak up on the quality of experience.

But this is dangerous territory. We may satisfy our need to recreate our original experience as we say or write these words, and although we may even detect some new awareness or intensity arising within our conversational partner, we can never *know* what experience we provoked in her. Both the potential for understanding and misunderstanding are amplified when we speak metaphorically.

All this consideration alerts the reader to the fact that this chapter contains metaphorical passages, and I am fully aware of the potential to get everything wonderfully right but also terribly wrong. Certainly it’s the case here where the narrative metaphor, or allegory, will not be used solely to expand an emotional response. We will be looking for hints of persistent realities as well. One more thing: since we will be speaking allegorically, we will not be able to prove anything in the legalistic or scientific sense, except when we step out of the allegory to speak literally. So, let’s begin our tour by speaking non-allegorically. Our aim is this: to compare all systems that have the qualities of living entities to holograms, but in a limited and peculiar way.

Most readers will have some passing familiarity with the word hologram. If your only references are from popular and material culture, your primary association may be with those spectral watermarks on your bank card. You may also recall numerous references to things holographic from futuristic movies or novels where science fiction postulates some breathtaking communications technology better a video-conferencing interface. In holographic

communication (as opposed to Skype), all parties would appear as three-dimensional, full-color, instantaneous presentations for each other, somehow immaterial and yet present at the same time.

Of course, even this imaginal technology pales beside the ultimate reality generator, the original *Star Trek* transporter, where your entire physical body, replete with the intelligence and experience of your physical body's mortal life being disassembled, transmitted, and reassembled as you, ready to pick up where (or rather, "when") you left off, in a remote location. And then there is the mash-up world of the later *Star Trek* series. Crew members had access to a recreational holodeck where visual information could be projected into a sort of playroom of artificial three-dimensional scenes and virtual beings to interact with and where all aspects of the interactive scene's physicalities are also, somehow, projected to allow a full sensory experience, with cause and effect. That's as may be, but it lies outside of even speculative reasoning today. Instead, we need only refer to the original technical demonstrations of photographic holograms from nearly a half-century ago.

The optical hologram, as we know, is a real and reproducible effect. Before we inquire what a hologram is, why it is so amazing, and how we might use it as an investigative reference and a metaphor, we should take note of a few properties of our own unaided eyesight. For the sighted majority of humans, there has probably never been a more bedrock assumption than the aphorism "seeing is believing." This explains why eyewitness testimony is given such weight in our justice system, and, in fact, why eyewitnesses occupy a place of pre-eminence in other cultures' evidentiary systems. We are willing to admit, usually, that mishearing someone or something is quite possible. Perhaps one heard a snippet of conversation and inferred the rest based upon

presupposition. The parlor game of “Telephone” quite adeptly shows us how easy it is to completely misconstrue a message when it is conveyed only once, blindly, without context and without the ability to repeat what we think we heard back to the sender.

Our other major senses are equally unreliable without context, repetition, or cross-checking. Many of us have participated in the test (sometimes also in the form of a parlor game) of reaching blindfolded into a box of objects and trying to ascertain what they are. We know that our sense of taste is easily fooled by suggestion, if unaccompanied by smell and sight. If you are so informed, you will readily believe you are eating a slice of cold apple when it is really a slice of cold, raw potato, if you don’t see and smell at the same time. Our sense of even cold or heat is easily deceived, both through sensory deadening (as in tests of temperature assessment when immersing one’s hand in water of various temperatures, with either gradual heating or cooling, or increments of change not large compared to the baseline), as well as through sensory inversion (one can experience burning from both extreme heat or cold). And yet to see something is, we suppose, everything.¹³

Of course, we also know that this reflexive mental prejudice renders visual deception far more profound than other sensory illusions. This explains why the classic movie *Twelve Angry Men* was so socially powerful. It accounts for why we will view films of disasters or moments in professional sports over and over. And why the craft of magicians has so captured our imaginations for as long as there have been those skilled in the art of mass visual delusion.

¹³ For this reason the opening of the era of photo-journalism was revolutionary as societies came under its sway.

What do we really get by seeing something? At the level of physics and biology, we think we know much of the basics, but are we sure? In the Middle Ages, one of the popular theories of eyesight (proposed by the Arab scholar Averroes) was called “extro-mission.” This theory proposed, quite sensibly, that the way we perceive is through the sending out of a signal from the eyeball, which travels out to the object one wishes to see and petitions the outside object by “tickling” it, sort of like reaching out and stroking a cat to get the message back of what the cat feels like. Nobody believes in extro-mission anymore. Objects in our field of view either reflect part of the light that is shone upon it (by the sun, by flashlight), or that object may generate its own light (like lightning bugs, or lightning, or the sun itself). That signal of light, including the colors and intensities sent by different parts of the object, strike our retinas after passing through our eye’s lens, and the (hopefully) clear fluid in the eyeball. What happens next is much more complicated.

We used to think that the retina was a bunch of pixel-like cells that either sent an electric signal down the optic nerve, or didn’t, depending upon whether light that corresponds to that part of our field of view entered the eye or not. While there is certainly an electro-chemical response at the retina, the entire dance of external stimulus with internal neural signals, along with a conscious expectation of what we are perceiving, turns out to be far more mysterious. There are systems dedicated to discerning vertical boundaries, and horizontal boundaries, perhaps kinds of motion or patterns. There is even a brain system that is overwhelmingly dedicated only to the task of identifying human faces, not just one face from another, but faces as opposed to all other objects.

If any of these systems worked differently, the world would appear very differently to us. And of course, we are not even considering all of the wavelengths of light we can't see with our eyes but which have a great effect on other living organisms or even other devices. Lots of creatures cannot see light in what we call the visible spectrum, but lots can see ultraviolet light, or infrared light, or can make sense of patterns that make no sense to us. For these species, to be limited to a human's spectrum of vision would be far more detrimental to them than, say, our being color-blind in our own sensory landscape.

And this leaves out all sorts of other sensory information that evades us. X-rays, which are a more energetic part of the electromagnetic spectrum than visible light, had to be discovered even though we fully knew how to calculate wavelength and energy at the time. And so today, we still like to maintain the same old species-prejudice that we know about things, close at hand or far away, and in fact we are so smart that we can invent instruments that enhance all our senses so that we aren't missing anything, or we hope nothing important.

Some truth resides in that attitude, but it is not a particularly useful insight unless informed by our own history. Yes, we have electron microscopes to see the infinitesimal. We have the Hubble Space Telescope, huge radio telescopes, and the Chandra X-ray telescope to see out to the (practically) infinitely distant and immense. But a much greater proposition is at stake. We have no way to say what object or phenomenon we are not seeing if its primary signature is not some form of electromagnetic energy at all. In other words, *seeing may well be believing, but seeing is most definitely not knowing*, unless by knowing we mean confirming what we already expected.

Rather than cause dismay or discouragement, this state of affairs should only remind us to avoid epistemological arrogance. After all, a central tenet of this book is that we do have these physical, mortal bodies. So let's see what we can learn through them. Isn't that a good enough reason to have them in the first place? This attitude does nothing to disparage the scientific understandings we do have and will develop, which substantially come to us by way of these magnificent instruments we do invent that extend the senses we do have in every dimension we can imagine. But notice, we are creating all of these amazing instruments as a way to translate something we think may be going on "out there" into some outcome that makes sense to our senses, namely almost always to our vision.

Even when we accomplish a detection of force or a management of data, we experience only what our instrument tells us or shows us. That is both the wonder and the limitation of being a human being trying to understand the cosmos. Therefore, if we are going to use some aspect of what we can experience to leverage our understanding of something we cannot perceive, except at the theoretical level (whether that is the lived experience of a bacterium, or the entire ecosphere, or the Big Bang), we can be excused for our attempt, if it is done in good faith and with some humility. Every "try" we make to sample reality out there is necessarily our best guess and intuition of a foundational understanding of something else, and not ourselves talking to ourselves about ourselves.

Okay, then, if the mechanics of biological vision are more subtle than we currently understand, then understanding why we might turn to holograms for insights is not that big a gamble. In other words, considering the mysteries still inherent in the most fundamental ways we perceive the world, we are given greater permission in using a physical occurrence in one area to metaphorically extend our vision into

other realms. The root of the word “hologram” is *holos*, Greek for “whole.” We get the word “holistic” from here, and some writers and philosophers have used variations to express their ideas. Arthur Koestler liked the word “holon” for things that emerge out of their constituents. Contemporary philosopher Ken Wilber likes the concept of “holarchy” and has developed an entire school of inquiry based upon it.

The underpinnings for creating the hologram imaging technology we call holography (presentational and representational) were first elaborated in 1947 by the physicist Dennis Gabor while working on a problem in microscopy.¹⁴ The jump from theory to reality came following the development of the maser (Microwave Amplification by the Stimulated Emission of Radiation) in the mid-1950s by Charles Townes at Columbia University¹⁵ and the construction of an optical laser (Light Amplification through the Stimulated Emission of Radiation) in 1960 by Theodore Maiman at Hughes Research.

The significance of the laser for producing a visible hologram is two fold. First of all, the light from a laser is tightly monochromatic, or of a single wavelength (color). This may not seem too surprising for the non-scientist since one might imagine that a sufficiently selective color filter, such as we might attach to a camera to get a particular hue, would also produce a single color. However, we can only appreciate what a true single wavelength of light means by appreciating the laser’s second, and unique, quality. This quality is called “coherence.”

¹⁴ Gabor received the Nobel Prize for Physics in 1971.

¹⁵ Townes was co-recipient of the Nobel Prize in 1964.

Coherence is a truly amazing property that can be produced at the atomic level, given special conditions.

Before we get to coherence, imagine light as a type of vibration. Think of ripples on the surface of a pond emanating from a dropped pebble, except instead of the vibration being defined by the undulation of the surface of a body of water, the vibration is an undulation of the strength of an electrical field in space, if that is useful to the reader. The color of light, which is directly related to the wavelength of light, would be analogous to measuring the distance between two adjacent crests of ripples as they went past you. If the light is monochromatic, it means the pattern of disturbances all have the same wavelength. White light, as opposed to a single color, has emanations of all different wavelengths of light mashed together in the same beam.

To understand coherence in a beam of light, imagine being out on that pond in a rowboat and waiting until the surface of the water is perfectly flat (undisturbed). Now you are going to picture dropping a large number of individual pebbles overboard in the following pattern. You drop some of them one at a time from your left hand over one side of the boat, and some more (one at a time) from your right hand over the other side. The ripples produced from each impact and from both sides, as they move into each other's spaces on the surface, never cancel each other out. In other words, each traveling ripple produces crests and troughs that line up with every other ripples' crests and troughs throughout the entire pond as they travel towards the shore. For this condition to persist, not only do particular crests and troughs need to meet up exactly when they intersect, but also they must have precisely the same wavelength. A laser does exactly that with light.

I was in high school when articles about holograms, along with directions for producing one's own holograms in an optics laboratory,

began to appear in magazines like *Scientific American*. The accompanying images seemed surreal. It was hard to imagine anything useful we could do with them, except for the rare and neat display of visual wizardry. For example, consider making a holographic image of a toy train on a piece of transparent film (as is used in film-based holograms). This requires the use of an “object-laser beam” to scan the toy, as well as an identical “reference beam,” from the same laser source. The reference beam and the object beam are then brought together to interfere with each other (as when two pond-ripples intersect). Re-integrating these two beams to expose a film transparency produces a sort of smudgy and meaningless smear on the transparency when it is developed and viewed under regular light. When the developed transparency is illuminated with coherent (laser) light, however, another image entirely results.

Rather than the meaningless smear, you see that same toy train, which now appears not to be on the surface of the transparency at all but somehow floating in its vicinity. The breath-taking part was a true three-dimensional vision of the original object. By “true” three dimensional, I don’t mean the image appears to have depth to it. After all, we have been able to do this for more than a century by the use of stereoscopic techniques, whereby a slightly different image of a single scene is provided for the viewer’s right and left eye, respectively. Looking at a properly prepared aerial stereo-photograph through a stereoscopic viewer (sort of like a binocular microscope) is stunning, to be sure. It gives you the impression that you are in the airplane itself, hanging out a window and taking the picture. However, that perception of depth, which is required for a true visual-spatial experience, is limited to that one view, that one line-of-sight experience for that

particular image. As nifty as this can seem (versions of this principle are used to create 3-D movies), this is not a hologram.

The holographic transparency has the remarkable ability to show us *different* points of view, which change with our own positions as the observer, just as the actual physical world behaves as you move around in it. That is, while looking at that particular floating image of the toy train, we can move around the transparency itself and see that same hovering toy train from different viewpoints! As you move, you see the same thing you would see if the toy were suspended in front of you. You can see the train from the front, the sides, even the back. And you don't see this as some discretely ordered variety of views, like turning the pages of a picture book where each page is the same image taken from a slightly different angle. The changing viewpoint is continuous and smooth, as it would be in the real, physical presence of the original object.

Even more remarkably, when you cut up that holographic transparency with a pair of scissors and subject that little piece of film to the aforementioned laser illumination, you don't get a little piece of the original image of the toy train. Nope. You get the entire image of the train, only smaller. True, when you cut up the film, there are practical limits to the image you get. But these technical considerations are beyond our interest, here. The concept we wish to get into our understanding is the phenomenon itself, a holographic principle that undergirds the technological application.

For our discussion, we can say a hologram is unlike a photograph in one fundamental property. A photograph records only the information in each little subunit of its surface that corresponds to the same information in our field of view (the part of the photograph representing the subject's nose, for example, will contain no visual

information of the subject's shoe). In distinction, EVERY part of a hologram seems to encode information about the ENTIRE subject! What a hologram seems to be is not so much a replication of a three dimensional reality, at a given time, mapped onto a two-dimensional projection, which stays fixed over time. Rather, a hologram is a novel way of translating the information about a three-dimensional reality into a two-dimensional medium. When we retrieve that information, the full dimensionality of the original object reappears, and that dimensionality is continuously variable, potentially representing any desired point of view at the time we decide to view it.

All right, so much for what a hologram is. Now, let's begin the metaphorical journey. Again, our ultimate goal is to search for possible wisdom and insight to inform our choices in mortality and perhaps to expose novel models for how we might live intentionally and consciously, not an obvious path to seek meaning. Let's ask ourselves if anything else in the real and physical universe has this essential holographic quality. Do we know of any other entity where all the information about the entire system resides in every part of the system, and all of this information can be recalled and expressed at will? Perhaps you have responses to this question, and it would be enjoyable to hear your ideas. Since the nature of a book doesn't immediately provide for others or for me to hear your response, though, I will offer up some suggestions.

The most immediate example of an entity expressing holographic properties is one we might miss because of its proximity: our own bodies.¹⁶ Every cell of our bodies (with the exception of our germ cells,

¹⁶ The human species is but one example. Complex biological organisms are the perfection of a holographic system as we have elaborated it.

the sperm and egg) carries the information to recreate the entire body from scratch. We know this process through the mechanism of cloning. We are beginning to understand the variety of cells found in the adult organism that can still be provoked into this emergent regeneration. We have taken our tentative first steps into understanding how it is that normal adult cells do not always and spontaneously proceed into forming new, complex organisms while still retaining the ability to regenerate their selves. Whatever mechanisms restrict most adult cells from spontaneously producing new and multiple brains or kidneys, we are glad to have them. After all, it would be inconvenient if our bodies, just through normal cellular replacement, could spontaneously grow new kidneys, or ears, as easily as we grow hair, skin, or red blood cells.

At the simplest level, our DNA is the physical and biological entity bearing the holographic information. Initially, in everyone's early development (the pre-embryonic state called a blastocyst), every cell is identical, and the rate of population increase among those early cells races ahead explosively (literally, exponentially).¹⁷ We think we know the most about the routine-running aspect of DNA and the arrangement of proteins into our physical bodies, not the other subtle and powerful experiential and interactive parts of making us who we are as physical and intelligent beings. The development of a blastocyst into an adult individual is more complicated than the mere tinker-toy assembly notion of DNA. That being the case, let's stay with the

¹⁷ Since I am not a biologist, or any kind of medical researcher, I will report only what I know through my readings and discussions, particularly with my brother-in-law, mentioned earlier in this book. My take-away messages are necessarily unencumbered by the sorts of qualification and disciplinary detail that are part and parcel of researchers writing in the academy.

physical-expression aspect of our description of biology and see what can be inferred.

At some point early in that exponential multiplication, the messaging among cells begins to prompt them to initiate forming identifiable tissues and organs, a process called “differentiation.” Still, the entire code of information remains in all the cells, as in bits of a holographic transparency.

Jumping ahead in our life cycle as human beings, when we are becoming aware of ourselves as identified with a particular body, distinct from other individuals with their own bodies, we are also becoming quite accustomed to the coherence and integrity of our particular bodies. We might think about our arm, for instance, if we have hurt it, but in general we don’t think much about our arm as an “it” at all, something separate from ourselves. We come to accept it as part of our holistic physical scaffolding.¹⁸

If we accept this unquestioned sense of body integrity as being a normal developmental process, then once we are physically mature, how much of that body do we consider essential to making up the individual we would call ourselves? This is not an insignificant question, and it is one I have often posed to my students. Without exception, students have said that if they lost an extremity, or even had an organ

¹⁸ There are rare disorders that prevent this innate conception of wholeness and integrity even in the absence of physical distress. Perhaps it is a version of this “disintegrated” self-awareness that accounts for obsessive bodybuilding, and unnecessary cosmetic surgery?

transplant, they are certain they would still feel like themselves.¹⁹ The common wisdom I get from most of my students these days, though, is that they consider almost any part of their bodies to be separable, without it changing who they are, as a *person*. But I push them as far as they can go. They won't even stop at the level of multiple transplants, or replacements by non-biological substitutes, in restoring them to wholeness.

Their position begins to get strange. It is impossible to construct any theoretical meaning of an individual living a physical existence if you remove the body below the head, even if you could supply the brain with nourishment and oxygen. Still, many insist that the only thing fundamentally "them" is something contained in their heads. Following their reasoning, if such a thing as a "brain transplant" could be accomplished, it would result in the owner of the transplanted brain living in someone else's body. Popular film and science fiction have played on this theme as so much mistaken identity to be worked out by the central actor in a trick plot. To put one's brain into another body would be the equivalent of a masquerade in these confabulations. But in any conceivable reality, that plot thickens. We really don't know where the self begins or ends in physicality.

¹⁹ It was not long ago when the public was aghast that a person would receive a heart valve or even the heart from another species. It was too Frankenstein. After all, this is the human *heart* we're talking about here. We seem, at least in the United States, to have gotten over that revulsion now, and few people even bother remembering that we were already fully "modern" before we were willing to let go of the notion that the human heart wasn't just a *metaphor* for our affections and our values. Only in recent times have we considered the heart to be a pump made of meat, and that objectification of this organ is still not universally accepted.

Moving toward the other direction, current science has fairly strong indications that a brain tissue graft from a donor could be induced to grow and supplant dysfunctional native tissue in certain degenerative brain disorders. Then whose brain do you have? Could one replace or enhance any part of the tissue of cognition and be left with the same core person? Is the only question one of degree? Could any graft be entrained to act according to one's original experiences and memories and skill sets so long as the grafting of new tissue were undertaken gradually enough? How would we know what that critical rate of introduction of new tissue was, beyond which we become a different self?

When my students resist these promptings and still insist that there is a "me" who can be located in "my" body, they always continue to insist that this identity is located in the brain. I ask them to tell me what their brain is, what it reports to, and how would they know if it were different from the way it "ought" to be, according to their assured identity. To enter further into this materialist conception of the self and the irreducible problems it presents, I sometimes take a tack that seems at first blush to be a retreat away from the abyss.

"Okay," I may say, "You got up this morning and looked in the mirror and recognized yourself. What made you certain that the mirror image was you?"

This provokes an initial jolt of confusion, with the obvious response being, "Well, it looks like me. I mean I looked basically like this yesterday and even last year. Besides, all my friends recognize me every day."

In other words, it's a silly question.

Perhaps the apparent absurdity stems from the question's devaluing of the idea of a core identity. Perhaps it is the presumed fluidity of

personal presentation in contemporary social interaction that drives me to pose these questions of my students. Maybe the term “identity crisis” needs a new formulation. The crisis of one’s identity may not revolve around the need to determine which durable personality one most genuinely is. It may turn instead on whether or not the successful postmodern person has any identity worth worrying about.²⁰

We can move even further in dislodging the simple location of selfhood in our physical presentation to the world. If my college students bring in pictures of themselves as either a baby or young child, the other students can easily match the photos with the young adults, but only an expert in forensic physical development could predict what the photograph should show. So, the question remains, where is that fixed identity, that “you,” in the physical body? If my students then insist on getting truly materialist–positivist about the issue, they may respond with something like, “Well, I have essentially the same physical body from day to day. It ages over time, like anything would. I mean, if you have a really old book on your bookshelf, it is the same book, but after many years the same physical pages get brittle and yellow. You still recognize it as the same book because it is!”

Of course, then I really drop the logic bomb on them. I tell them that our best (scientific) calculations indicate that even after you’ve reached adult stature, during the course of any given year of life, about ninety-five percent of the atoms, that stuff you claim is so real and persistent, is changed out and replaced with other atoms from the environment. Every day, you slough off skin cells, you lose a ton of red

²⁰ If you sense in this digression that the author believes there are authentic selves to be reckoned with, and we collectively dismiss the notion of selfhood only at our peril, you would be correct.

blood cells, your cytoplasm, your nerve cells, are dying and being excreted, in one way or another, and being replaced by new matter from outside your body. After all, what do you think happens to the food you eat? It isn't all either glucose or turds (energy or excrement).

This usually puts my students into a reflective mood. But of course the next logical step is to ask what ARE you, then. If we can define ourselves as a fortunate sack of intact molecules that happens to have the right ingredients to make you conscious and mobile, then what? Of course, this is an eternal philosophical question that has stumped some of the most powerful intellects. Not surprisingly, some have concluded that we don't exist in any meaningful prescriptive way. Okay. Perhaps everything is illusion, even illusion itself. In any performative sense of living, of course, this is useless. But here is where, if you have stayed with this rather extended exposition, we can repair to the metaphor of the hologram for insight.

At its root level, the hologram is a physical, spatial body, encoded on some medium, which makes it possible to recall all visual information about the body whose physical presence is not with us. In other words, it is a means for reproducing, not meaningless data, but patterns of reality. When our atoms keep getting replaced by other atoms, what is preserved that allows us to feel that we are still who we are? The simple answer is the patterns that persist.

The superficial evidence that our patterns persist is that our bodies are recognizable to others and to ourselves over time. I don't mean that these elaborations of reality are technically easy. Sure, they might be complicated, but they need not be *trans-rational*. And, while expertise may not allow us to always predict outcomes, we still feel we can explain outcomes *after* the fact, without recourse to any forces that aren't lying around and obvious to everyone. In other words, It isn't the

persistence or even reappearance of the exact-same stuff that is important. Patterns—of physical arrangement; of behavior and interaction; between similar entities; between past, present, and future—indicate connection, cause and effect, and meaning.

Yes, you can stretch this “patterning” view of the human body to account for everything and still remain a strict materialist. That is, you do not absolutely need to admit to the existence of something like a soul to continue on with this argument. But you must recognize that you have, in fact, tortured the concepts of materialism and positivism, as they have been understood since the Scientific Revolution. You have substituted “patterning” for the standard idea of blobs of “matter” in motion. Still, you have the right to think this way, and I, for one, am not going to insist that you think any differently about the human body or any other living organism. With that agreement alone, we can proceed to make inquiries about the body in an attempt to get at some other insights about how we live, individually, as well as globally, socially, and culturally.

Where does this leave us right now? We are using this holographic metaphor, not only as a means to better understand how we live in our own bodies, but also to see what suggestions this allegory may infer about how to be a good human cell in a global body.

It would seem that we all are in possession of a physical body that expresses itself, for want of a better analogy, holographically. Every part of the organism (with the exception of the gametes: sperm and egg) contains all the information for forming the organism in its entirety. We are able to be alive in the first place because our physical bodies have patterns that interact, producing self-knowledge within the organism even if we are not consciously thinking about it. This is how

cells know when to divide and what to become: when there are enough of one cell type, and when there are enough cells total. We can be thankful for the “diffraction and interference” patterns in our body that inform the parts about the whole and the whole about the parts. Without that pattern-recognition information being continuously communicated, we would double our size every time our cells divided. We also might have turf wars, where the particular expression of self we call liver cells would compete for territorial dominance with the expression of self we call kidney cells.

The big thing organisms accomplish, as long as they are living and healthy, is they maintain a constant conversation with their environment. That conversation is a continuous dialogue, involving the sending and receiving of both information and resources. For anyone who thinks that the primary activity of a living organism is to accumulate more stuff, try taking a breath, and then another and another, all without exhaling. You sure are collecting a lot of air. For a while. And then you pass out and you lose everything.

Of course, the reader will have long since seen the metaphorical train hurtling down the tracks. You can already see the linkage between the necessary differentiation of cells, and the implicate differentiation of human types: ethnic, gender, age, cultural. You can also see the correlation between a lethal preference for the production of liver cells over kidney cells in the body, and a preference for one culture, ethnicity, or religion in a population. Those tendencies, whether operating in a single body or a single society, are pathological. Since these points are obvious, I won’t belabor them. Instead, let us take some cues from a disorder that is distressingly common, and see if that yields any further insight into mortalities, our own and those of everyone else.

As you may have guessed, I am referring to cancer, which—along with circulatory disorders—constitutes the leading process through which citizens of first world societies end their mortalities. What, exactly, is a cancer? Not being a cancer researcher, I would be overstepping bounds to answer a question that has bedeviled medical science. Besides, most often cancer has been explained not as a single disorder but, instead, a spectrum of disorders. Nonetheless, from my reading of the emerging understandings, cancers do seem to cluster as a series of linked traits, and at the bottom of all the distinctions, a few shared characteristics do appear.

Cells that come to be categorized as cancerous—particularly those that are malignant and likely to cause catastrophic failure (death)—share some particularly nasty habits. First of all, unlike healthy cells, they do not know how to die. They are immortal. Secondly, they tend to replicate without differentiation. They make a lot of themselves (think of the liver winning the battle for territory and becoming huge). Thirdly,²¹ they have a particularly destructive way of hijacking other cell structures to serve only their needs. This is also known as the “inflammation response” syndrome, currently one of the most comprehensive lenses for categorizing, and hopefully treating, cancers.

Now, the alert reader may also see the analogies these traits suggest, but since we have only just introduced this concept and haven’t already poured many words into setting the back story, allow me to elaborate briefly. Remember, we seek to avoid dogmatic moralizing. At the same time I wish to provoke the reader with suggestions, so please don’t mistake this elaboration as a doctrinaire lesson from a stern schoolmaster. Let’s try out a few ideas without considering them to be

²¹ I’ll keep it to these three traits.

just more radical haranguing (for some people) or self-righteous congratulations (for the rest).

What are some signatures of current American domestic and foreign policy? For one thing, we constitute five percent of the world's population. We consume twenty-five percent of the world's energy production. Our total economic activity (approximately \$14 trillion) was more than one third that of the entire world's last year (approximately \$40 trillion). How do we marshal such an outsized proportion of the world's activity? Not inconsiderably through "malignant" means, whether that is military activity or muscling (non-free-market) leverage to get other parties to divide and divert their resistance to our wishes.

This statement is not an exaggeration or abuse of either the content of our trading activities, or of the medical usage of the term "malignant." Remember, a malignant cancer in the body is not some angry, vengeful tissue trying to inflict pain on the rest of the body. Instead, it is a group of cells that are NOT in conversation with the rest of the body, as all healthy cells are. These are cells oblivious to the body except as a stockpile of resources. And these resources, including nutrition, blood vessels and even the space previously occupied by functional, conversant tissue, are merely to be exploited for the growth and replication of the cancer cells themselves, which perform no useful services for the rest of the body.

How do we hope to advance our own agenda add-infinitum? So far, we haven't been doing this by engaging in "dialogue" or "conversation" with our environments. The rest of the world I hoping that the new Obama administration will present the United States as a functioning organ in the global body. However, for most of the last eight years, we have refused to talk to those (societies) who disagree with our own ideology, calling them fanatics or ideologues or non-democratic or

fascistic or fundamentalist. We have even refused to have a serious conversation with our physical environment, and instead we have proliferated our consumptive drives while spewing toxins in our wake. Sound familiar?

We prefer monoculture to diversity in every aspect of our mortal experience, most literally in our agriculture, but also culturally and, especially, commercially. We want everyone to get on the “level playing field” because the implicit assumption is that everything important can be measured (bought and sold). So we want to make sure everyone stays in our marketplace doing what we do. If you will not agree with us that everything has its price, that for everyTHING there is another THING, well then you have to be acting deceptively. Surely, you can’t seriously believe that! (We don’t, so you can’t.)

And if that is the only game in town, or in life, well, then, we want to recruit everyone to play that game. It makes us uncomfortable to think that we might be missing out on something you’re getting. And, since this *quid pro quo* is the only thing to be doing, then we definitely don’t want *mortality* to catch up with us. It would ruin everything! We would be re-leveled by life itself, giving back all that stuff that we lived to get. So, we’re willing to spend untold billions to secure a cure for what ails us in the last six months of life rather than spend sensible amounts of capital so that everyone can have a reasonably long and individually meaningful mortality. It’s an investment well spent, a kind of life insurance. But perhaps it is more accurately described as accumulation insurance rather than life insurance. After all, as long as we can extend our stay, we can hold on to our stuff, which is where we put our living.

A half century ago it was unthinkable, in the popular culture of industrialized countries, to consider the planet earth as we would any complex organism, including ourselves. Environmental science had not yet become a formalized field of study. Environmentalism as a social movement was just beginning to vibrate, largely from the power of works like Rachel Carson's *Silent Spring* and Aldo Leopold's *Sand County Almanac*. For some segments of the broader society, the signature of a radical opening in our possible understanding was not only the first Earth Day in 1970, but also the first photographs of the earth taken from the moon, captured in 1969.

The holographic model of an organism-of-organisms includes seeing things like weather, hydrological cycles, and tectonic cycles as communicators of both resource and information within the large organism. It entails regarding their workings in much the way we understand blood and other vital fluids, respiration, and digestion and metabolism to act in our own bodies. Of course, critics of such an interpretation could easily counter that the earth has witnessed the extinction of species, not only currently, but probably for as long as there have been species, especially if they rank the continuance of the human species as being the premier indicator of planetary success. This stance presumes there is nothing remarkable about species extinction unless, of course, that species is humanity. In other words, things change. And there really is no counter argument for this, if one is to proceed only with physically observable and countable metrics.

However, that conclusion is not just fatalistic in the original and literal sense: "Don't worry, things will work out. They always have, and they always will." It is also fatalistic in the negative connotative sense. It refuses to consider the possibility that there is something especially wonderful in that we, humans, constitute a species that can observe,

learn, plan, design, change, and make decisions based on other kinds of conscious influence than sensory reflex responses. Furthermore, this book is about how we can learn about getting more *life* out of mortality, and not just more *mortality* out of life.

When this becomes the goal, the fatalistic criticism launched against thinking organically is immediately disqualified from our intellectual toolbox. It has nothing to say about any question of meaning, no matter how personal those questions may be. It amounts to addressing the profound question of identity (who are you, and how do you know?) by replying that identity, along with consciousness itself, doesn't exist. It is merely a hallucination of a hallucination, *ad infinitum*. Okay. That's funny. What next? Pizza!

So, yes. Things die, and entire species go extinct, everyday. Hopefully, though, we can muster an enthusiasm for the fact that we are, for now, alive, and alive together. Furthermore, it ought to be awe inspiring to regard this planet as a life producing and proliferating home. One might also hope that many individuals will care both whether and how species do die off, and not only for sentimental reasons (they're cute!). Lots of species-level organisms, such as ants, flies, and plankton, aren't all that cuddly or romantic, but we can easily see if any of those simple systems were to collapse, everything else goes with it. It isn't like losing a finger to a power saw. It is more like having all your red blood cells disappear.

Something may be an observable fact but that does not mean it provides meaningful information. At some remove, the observation of a presumptive pattern may turn out to be a profound truth, but it may be only coincidence, or it may not provide any useful outcome in terms of how we live right now. To use analogies based only upon a seeming pattern or reiteration and insist that they constitute some kind of

occult message of salvation, is rejected out of hand by most thinking persons (which is a good thing). I would characterize such insistence on meaning as being irresponsible use of analogy.

For example, we could point out a few things that current understanding in the fields of neurobiology and cosmology indicate are true: 1. The average human brain contains approximately 100 billions cells. 2. The average-sized galaxy in the visible cosmos contains around 100 billion stars. 3. A rough estimate for the number of galaxies in the visible cosmos is around 100 billion. And that means? That the cosmos attaches some cryptographic significance to the number 100 billion? It is a cool plot device for a science fiction movie, for now. But this could all be a coincidence of counting things, so it would be ill advised to mine the number 100 billion for some life lessons.

Here's another one: if you stacked up the total U.S. annual economic activity as \$1 bills, you would have a stack of bills that would stretch from here to the moon three and a half times. How did I figure that out? Well, I took a book off my shelf, saw how many pages it had, measured that thickness with a ruler I have on my desk, and, knowing how many inches are in a mile, and that it is a quarter million miles to the moon (and, yeah, I did use my calculator), I got about three and a half. I have no idea what that means, except that this is a lot of money, and if we had all those bills printed out, instead of as code in financial computers, we might have to sacrifice a lot of earth's trees and cotton. I didn't figure that part out. I do have a sensitive postal scale that would allow me to solve that, but I lost interest. (Do that for homework, and I'll collect it tomorrow.)

However, I do hope that the parallels between unhealthy human pursuits and the growth dynamics of cancer cells does not seem, to the reader, like an uninformed or superficial exercise signifying nothing.

Do we need to carry this exercise any further? As one of my physics professors used to say at the end of every lecture, “Okay, let’s give up.”

Chapter 7: Now Do This!

Wouldn't it be great to be rich? Not metaphorically. I mean really rich in the old-fashioned sense of the word. What if you had so much money that the mere act of rolling out of bed in the morning caused tidal waves of money to crash on distant shores? (I heard once that John Maynard Keynes had something akin to this sense of his own ability to make money by shuffling investments but preferred to spend most of his effort doing other things.) Your most off-handed notions could lead entire industries to rise and fall. You would have to insulate yourself with layers of intermediaries because every dreamer and schemer wants to change the world, and you represent the surest boost into orbit.

I have no idea whether it would be great, and most likely you don't either. My ignorance doesn't arise because such individuals don't exist. This life story just hasn't been mine to live or even to be associated with. The operating principles of gaining and managing wealth are more remote to me than even trying to imagine living as a different species. In fact, I don't know of a single family ancestor on either side to have suffered from an affliction of wealth.

So is wealth bad, either for the rich individual or for the society that worships them? I have no idea. Trying to attach an either/or judgment to the reality that pockets of outsized wealth exist is kind of like trying to decide whether bacteria are good or bad. Some bacteria can take up residence in your body and do you personal harm, maybe even kill you. But all of life as we know it couldn't exist without the presence of lots of bacteria. Perhaps it is possible to imagine a theoretical ecosystem,

even one that has some entities like self-aware humans in it, that doesn't also have any bacteria. I wouldn't know.

We do know that concentrations of wealth have often wreaked tremendous harm to the wealthy as well as to the rest of the planet. But we have a hard time drawing any absolute rules from that recognition. Perhaps the only wisdom to draw is that everyone would be better served if those possessing great fortunes could live with a real awareness of their own mortalities and use that awareness to inform their intentions on a daily basis. And let them converse with the body of society and the world organism, rather than living in an echo chamber. Then let 'em be rich as hell!

No one but you can live your life for you. Attempting to is usually disastrous, for all concerned, as countless parents throughout history can attest. At the social level, certainly individual citizens of repressive countries have had their options severely reduced, and that isn't a good model to reach enlightenment although that is sometimes the unintended result of oppression, for undeniable works of genius have been produced under duress.

However, I would argue that the most common repressions in any age have arisen from the tyranny of habit and a lack of imaginative introspection. In the greater and more humanistic scheme of things, how we make our living is not nearly so significant as how we make our way through our mortalities. There will always be a need for leaders and followers, for teachers and learners, for mentors and apprentices, for artists and administrators. Many of us will act in many of these modalities at different times. It's all good. Societies will either muddle through or surge ahead. Sometimes they may crash and burn. We'll see.

So far as I can tell, the only thing that individual human beings may justly regret is the recognition that they refused to be as aware and

conscious of their own lives as possible. In other words, they never looked seriously at their own mortalities and didn't honestly account for what they are doing. If so, they were unable to say, "This was a good effort. I can take ownership of this mortality." Regardless of whether one lived a life that brought fame or was nameless to all but a few, it should make a good story, well told. In other words, figure out what you want your short stay on this planet to stand for, and then be authentic. Don't let yourself become a slave to surrogates. Don't fill up existential emptiness with a bunch of shiny stuff. Instead, see the hunger of meaning as both goad and invitation.

This was not intended to be a book of instruction, but rather an adventure driven by real desire. Is it too pedantic? I often make the same apologies to my students, and I start every semester with resolutions that I will, finally, be more Socratic. Every term I succeed only so far in that ambition. I guess a leopard really can't change his spots. All I can say is, in the course of writing, I have needed to play out constructions and actions where it would have been silly to assert that I don't have a preference. I wish we could act more compassionately as a society toward our children, toward each other, toward those whom we don't necessarily meet but who partake in and suffer the consequences of our actions. I wish we could be more considered and less arrogant in all our doings, not the least of which is how we treat this gem of a planet. There isn't any secret to that, but it isn't the real purpose for my writing. The real point is to find and embrace those visions that make mortality more than just place holding for the next generation.

Still, I agree with all those who admonish us against doing injury. Don't pollute. Don't vote for jerks. Help reform education. Do right by your neighbors. Take care with what you put your money into, and don't let it stand for things you don't believe in. Volunteer. Be nice to

animals, children, and everybody else. I'm not saying these things in this abrupt manner to make fun, or to be snide and dismissive. I promised you at the outset that I wouldn't be a cynic, and I am not. I just don't want to confuse these very important things everyone should know with the concepts we are working on in these pages.

Yet if you can catch yourself and act in these (non-injurious) ways, you *will* be a happier, more substantial person for it. At least in that particular, such actions and choices do have everything to do with this book. But I could neatly sum up all of those bits of character wisdom by using a much more fundamental observation, one that Kurt Vonnegut let his alter ego, Kilgore Trout, say for him: "Dammit! You just gotta be kind!" Enough said.

Whatever you choose, my wish is that you make your choices and perform your actions from within a sound context: your own mortality. Live your life, well, as if your life depended on it. I certainly can't answer for you what particular paths you should take. Many people do earn a lot of money doing just that, I know, and there is also a steady market for individuals who will step up and be somebody's surrogate parent when they shouldn't need one.

Try this. If you don't yet keep a journal, give it a go. If you are certain that written words aren't your main mode,, there must be other elucidating ways to open up one's life for inspection and instruction, but I am not qualified to elaborate on this. Assuming you can try journaling, here is a suggestion for your first entry. Write your obituary. If that frightens you, maybe you will want to start by writing about why that frightens you. What comes to mind? Put that down. Nobody else has to read it unless you want. If you are able to write your obituary on a first try, you can keep it short. Maybe a three-

paragraph entry, like what could appear in your hometown newspaper. Try to keep it real, not some alternate-history story like you were born to humble parents and discovered by Merlin. Try to make it like you, but your best you.

Write down the sorts of things that, once you had lived out a nice mortality, you would be really proud to have other people say about you. People who know you in complex and real ways, as you work out a complex and real life, like all lives are if lived consciously. If you can write down what you would like to have said about how you did your living after eighty years of working at it, you're done. Congratulations. Now see if what you are applying your time and efforts to primarily accord with your imagined obituary. Do you want to live a life that has a rich store of wonderful memories? It's only possible if you can remember in reasonable detail the difference between what happened last Wednesday and last month. This is not the simple mantra of "think and be rich" because people who keep saying that always find their way back to only one way of being rich. (Hint: it involves getting money.)

Don't neglect your sensory experiences. Giving especial attention to each of your senses on a daily basis is a powerful way to heighten your awarenesses, and hence your remembrances and gratitude. The easiest way to change your perception of something is to change your perception. Literally. If you always see the things you expect to see, and that pisses you off, try changing your senses for a while. Take time every day to do something, anything, you normally don't. It doesn't have to be long, but put the cell phone away for a while. Try to find a place of silence. You will be surprised what you hear (seriously).

Go into a crowded public place and see if, without snooping, you can pick out threads of conversation. If you're in a place with motion, like a train terminal, or even a cafeteria, you may only hear partial

sentences from people as they pass by you. Close your eyes. Listen for words. Take little pastiches of conversation, and let them evolve holographically even though you have no idea who said what, or whether your back story has any truth to it. Whatever you imagine, it does have *a* truth to it. It may even make you smile, and that's a good thing all by itself.

These can be practices or occasional diversions. The point is to pay attention to whatever limited piece of sensory experience is *actually* happening, not your expectation of what (you're sure) *always* is happening. Be surprised by experience. Force yourself to be surprised. You've heard or read these things from a million sources already, but try doing these things not as a way to relax and be mindless. Try being relaxed, but focused. Try doing some alternate experience and staying alert and aware, but not only aware of what regrets you have about yesterday, or the apprehension you have of tomorrow. Require yourself to attend energetically to one thing, to this often overlooked thing that was never worthy of your attention before.

Say one ordinary word over and over again, like "drawer" or "shoe," until it doesn't mean anything anymore. Then pick up the nearest ordinary thing you have at hand, a button, or a pebble, or a cracker, and study it in every possible way, with every sense. Then write down what happened. Do anything to find the holographic depth in something ordinary, or as William Blake put it, "to see the universe in a grain of sand." I really don't want to elaborate too much by way of example because then the act of being surprised becomes a formulaic action, and you'll never see anything different from what you always expect. If you stay out of the formulaic, you will be surprised by the depth of experience in nearly every encounter with the world, even the artificial.

It is oppressive for others to presume they know exactly what observations, environments, thoughts, or stimuli are inspiring or “healthy” for you. You need to seek those things out for yourself. I have a little shop behind our house with a workbench, and stocked with a wide range of tools and parts for constructing electronic circuits. When I need to get away from the world, after some unavoidable frustration at work, for example, I go out to the shop for a few hours and pick up a gadget I am constructing. These are usually nothing useful, just odd contraptions I make up for myself. With some instrumental music filling the space, I disappear down the rabbit hole of some inconsequential circuit, try this or that variation, measure what is going on, and begin feeling like I am a stream of electrons being shuttled here and there. In no time at all, my entire consciousness is restored and refreshed.

If I said to some people I was practicing a violin, or making a painting, or taking a nature walk, they would immediately nod their heads in agreement that this is how one becomes emotionally whole when fragmented. But if I said I can also restore myself by fixing an oscillator, well, they would find it strange. Why should any practice be in-bounds or out-of-bounds? It is all practice, whether you are constructing a sonata or a skateboard. If you are doing something consciously, and it is something you are pleased to own as part of your life story, nothing need be out of place. Find something, some experience and some kind of doing that you can own and requires you to step out of your nagging ego-self, and then do that.

On rare occasions, if you are lucky, the craft becomes an art. That goes for one’s work life as well. I happen to be a teacher. Not a big deal, except for me (and I hope for my students). I happened to fall in love with school, one day, first as a student and then as a teacher (but always

remaining a student). Hooray for me. I've been really fortunate to earn a living doing what most excites me. I am also confident that I can bring both skill and inspiration to my work. However, there is a posture to avoid in this sense of doing a job with some *élán* and elegance, and that is the realm of arrogance. To be most honest about it, though, I believe this does not require clothing oneself with the sort of false humility that presents itself as timidity, or a flaccid self-concept.

The most important quality to hold when doing good and skillful work in the world is gratitude, it seems. If one is truly grateful for being able to do good work with skill and insight, it implies that one sees oneself more as a fortunate channel for such an expression of craft and life than the prime mover, the origin and author of intelligence, or art, or wisdom. Gratitude is much more in line with the ancient Greek concept of the muses working through human vessels than it is an embrace of contemporary society's fixation on individual genius.

I must admit that, for anything I do, in any skill area, there have got to be many, many individuals all over who can do that thing better than I do it, including my favorite passion, teaching. So what? I think that all of the "special-ness" preaching is nearly as harmful as the prior generation's burden of being deemed "ordinary" while a rare few people (usually in the classroom) were deemed "gifted." We're different in different ways, and you have to make meaning for your mortality. Nobody can make you "special," whatever that even means. To use the analogy of the holography of the body, I happen to be a liver cell. There are millions of other liver cells. Who is the best liver cell? Who gives a shit? I am a liver cell (teacher), and I happen to be here and not over there. And when it is my turn to cycle out of the global body, I hope it will have been a good run. Will I have had it all? Well, I haven't had a turn at being in a spleen, or eye. What a waste it would be to be

designated a retina cell but spend your entire mortality rushing around the body trying to be every other tissue! You'd never see a thing!

Is there any take-away message from all this? If we really have been favored to find our own way and to be a fine human, any message would have to be gentle and almost unobtrusive. So how about this: be as grateful as you can, by learning how to be aware of how amazing and breathtaking it is to exist. Take notes. Understand your best current understanding, and act accordingly, and you'll never have a mid-life crisis. Breathe your life. Don't hold your breath. Certainty only comes with death, and that goes for anything you can think of. The only reason why we can write a complete grammar and lexicon for Latin is because nobody speaks it anymore. That is what death is. Are you absolutely certain what must happen in society, in politics? My god, how can you stand the boredom? Are you certain your religious doctrine describes what is real and why, and what should be? I am so sorry. I cannot imagine the pain of going through life without mystery.

Yeah, I'm a liver cell. Life is pretty great down here in the liver! And, if things and actions start to trail off for me near the end of my mortality, and I become less useful and less vital, I hope I don't become malignant. I'd be fine going out as benign.