CHAPTER 1

Radical Life Extension: Technological Aspects

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Demystifying Aging

What is aging? No one definition suits all contexts, but for the purposes of this chapter, the term can be defined quite precisely: aging is a progressive, lifelong process of alterations to the structure of the body that eventually compromise its function, culminating in death.

At its most essential, aging is a physical phenomenon, so its nature does not depend upon an understanding of the nonphysical aspects of the individual. The rate of aging may be influenced by stress levels and other aspects of one’s state of mind. However, the actual nuts and bolts of aging—the differences between a younger person and an older person that cause the older person to have less time to live on an average—are purely structural, definable ultimately in terms of the atoms of which the body is composed and their spatial arrangement.

This point cannot be overemphasized because there is a widespread tendency to think of aging as a mystical phenomenon, intrinsically beyond our ability to comprehend (let alone combat). I have written at length elsewhere about the psychology underlying this and will not repeat myself here, beyond saying that I regard it as a consequence of our terror of the debilitation and dependence that aging so inexorably features. This fear is so deep that our most effective way of coping with it is to put the whole matter out of our minds. We “mis-file” aging as something fundamentally
distinct from the specific diseases that we as a society strive so earnestly to defeat.

It is notable that many theological discussions of aging are in no doubt about this. Some adherents of religions believe there is a nonphysical component to the individual. Whatever nonphysical component the individual may have and whatever happens to that part of a person after she or he dies, there is essential unanimity across the metaphysical spectrum that nothing happens to it until she or he dies. In the living human being, the physical body not only supports the nonphysical, it traps it.

This may seem obvious to some believers, but the very obviousness of this fact causes genuine miscommunications between those who believe in the continuation of the individual after death and those who do not. The primacy of aging as an inescapable killer inclines many people to conflate the defeat of aging with the total defeat of death. Many religious believers would be chagrined to think that humankind might even aspire to delay death from all causes, let alone be in a position to achieve this result. The conflation of these concepts is harmless as long no one interprets radical life extension (RLE) as consisting of a usurpation of supernatural beings’ ability to annihilate humanity. However, there are certainly people who view it in the more literal sense just described.

It should be made clear that those who overinterpret the goals of anti-aging researchers are not entirely to blame for that overinterpretation. This tendency to exaggerate the objectives and claims of antiaging researchers is embedded in the entire “life extension” discourse. But more importantly, there is a consistent tendency in media coverage of such research toward emphasizing the longevity gains rather than the health gains. In this context, laypeople can surely be forgiven for at least becoming nervous that those who seek to defeat aging are in fact seeking to expand humankind’s influence over nature beyond what such nonexperts might see as its rightful limits.

However, successful biomedical interventions against aging should not be thought of as delaying extra-individual events affirmed by a particular religion (e.g., the second coming of Jesus in traditional Christianity) any more than they might delay explosions of nearby stars, collisions with asteroids, or any other event that would change the “rules of the game.” Such biomedical advances will delay the decrepitude, disease, and death of enormous numbers of people until and unless such events occur, and that’s all. At the individual level, similarly, such interventions will have the same effect as any other life-saving medical therapy: they will prevent one category of causes of death, but will not prevent other causes.