

# Why You Should Not Choose to Live Forever

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## I Introduction

We are all on the way to the grave—like all humans, all animals, all living things. But unlike other living things—or at least, the great majority of them—we humans are painfully aware that our days

are numbered. As far as we can tell, tulips, beetles and even long-lived tortoises do not have the mental capacities required to grasp the future. But our astonishing, massively complex brains have given us a kind of superpower: to predict the future and plan for it. This has brought us great prosperity, but also a curse: to know that we are mortal.

While we might acknowledge this mortality in the abstract, few of us like to confront the reality of our own deaths. Indeed, all across the world, and as far back into history as we can see, we humans have been telling ourselves stories about how we can escape death and live forever, whether through potions or prayer, sacrament, or science.

It is understandable, if we are enjoying life, that we should not want to die. But does that mean that if we could choose to live forever, we should? I will argue that the answer is no. Life is good, and more might be better, but unending life would be too much. I will argue—in Part 3 of this opening statement—that living forever would be the wrong choice for each of us with regard to our own welfare. And I will argue in Part 4 that it would be the wrong choice with regard to society and the planet as a whole.

But first, in Part 2, I will do what philosophers always do before trying to answer a question: clarify what it means.

## 2 Living Long, Living Longer, Living Forever

### 2.1 How Long Is Forever? Four Categories

Some people are clear about what they want from living forever: to not die, at all, at any point—to just keep going without end. This matches the primary meaning of forever: ‘for all future time’ (OED 2021). They want not merely to live for a hundred years, or a thousand, or a million, or a thousand million. All of that would just be a start, a mere fraction of infinite time—indeed, an infinitely small fraction.

However, sometimes people use the term ‘forever’ more loosely. A small ad that says ‘cute puppies seeking their forever home’ would not expect the lucky owner to still be looking after the dog when the Sun expands to swallow the Earth seven and a half billion years from now. They mean something more modest—in this case, something like for the puppy’s full natural lifetime. Similarly, when some people say they want to live forever, they do not mean until the heat death of the universe and beyond. Instead, they mean that

they want to live much longer than the usual human lifespan, perhaps a thousand years instead of a mere eighty.

These different forevers have some very different implications, so we should distinguish between them. For our purposes, it will be helpful to distinguish between four different categories:

#### 2.1.1 Moderate Life Extension

I will use the term ‘moderate life extension’ to mean extending life expectancy to somewhere between 120 years (about the longest any human has ever lived until now) to 160 years (about double the current life expectancy in developed countries). This would be an incredible achievement, which would require many breakthroughs in our understanding of ageing as well as of diseases such as cancer. But it might be reasonable to expect such life extension if medical science and technology continue to advance as rapidly as they have in the past century. I do *not* think we should consider living to 160 to be ‘forever’—that would be a gross misuse of the word. But arguments for or against living forever are often wrongly conflated with arguments for or against moderate life extension. So it will be helpful for our discussion to clearly distinguish this category.

#### 2.1.2 Radical Life Extension

By radical life extension, I mean defeating ageing and disease, so that people could live indefinitely, unless and until some outside shock such as a meteor strike puts an end to them.<sup>1</sup> This would require us totally mastering our own biology, but not everything else in the universe. Although we can imagine radical life extension brought about by swigging an elixir, in reality if it were ever to come about, it would likely involve a great deal of regular and intrusive medical treatment: to radically extend our lives would require some radical changes to our bodies.

1. In my distinction between moderate and radical life extension, I am largely following John K. Davis (Davis 2018). In earlier works, both John and I have sometimes referred to this category as ‘medical immortality’. However, it is at least highly unlikely, if not impossible, that immunity to ageing and disease would lead to living forever—or even more than a few millennia. In this opening statement, I reserve the term ‘immortality’ for categories that do allow the possibility of endless lives.

In theory, people might live centuries or millennia or more if immune to ageing and disease. But in practice, the chance of accident—not to mention the prerequisites of continued prosperity, political stability, and uninterrupted advanced medical treatment—would ensure that radical life extension did not literally mean forever. In fact, my life expectancy would become directly proportional to the risk of dying by causes other than disease in a given society. So my life expectancy would for example be lower in the US, which has relatively high rates of fatal shootings and car accidents, than in safety-conscious Japan. Actual lifespans would also likely be wildly varied, with some people dying while mountain climbing in their teens, and others making it to a ripe old age of five thousand. We can assume in scenarios in this category that people can at any time choose to stop receiving their elixir, and so bring about their demise.

### 2.1.3 Contingent Immortality

Immortality literally means not dying—not being mortal. An immortal being is therefore one that at least *could* live forever. Contingent (in the sense I am using it here) means dependent on other factors. We can define contingent immortality as being able to live forever—immune to ageing and disease, *and* accident or violent death, etc.—but also being able to die if one so chooses by discontinuing whatever processes are keeping one alive.

I find it hard to imagine anyone achieving this state in the known universe, given the possibility of radical shocks (a meteor strike that completely destroys the Earth, for example). But people do try to imagine it, and so we can explore whether the visions they conjure are genuinely ones we should want. For example, some people imagine this in science fiction terms: imagine in the future we will all regularly make ‘backups’ of ourselves—full brain and body scans perhaps. If then a meteor struck me, the backup factory would just produce a new me based on the scan, and I would be able to pick up where I left off pre-meteor. There are lots of problems with this idea, philosophical as well as practical, but it has its advocates. Other people might imagine contingent immortality in more mystical terms: for example, some people might believe we have a soul or self that cycles through different bodies, as some theories of reincarnation suggest, but also that we could choose to end this cycle if we wished.

### 2.1.4 True Immortality

As mentioned, being *immortal* means not being mortal. Some people interpret this as being an entity that *cannot* die, no matter what happens or whether one wants to live on or not. This is the kind of immortality often associated with gods and other supernatural beings. But it is also a very common view of humans. Many people believe that my true self is my soul, and that my soul *just is* immune to ageing, disease, and drive-by shootings. No elixirs or medical breakthroughs required. Billions of people believe that they have a soul in this way, and that this soul survives the death of the body—around 65% of people in Europe, for example, and 70% of Australians (Pew Research Center 2018, 125; Moore 2021).

The details of these beliefs vary. Some people believe that their souls are reincarnated in new bodies, whereas some people believe they will go to other realms, such as heaven or hell. In many cases, they believe that their souls are not the kinds of things that could ever die: that they are essentially immortal, and will necessarily live forever. This is what I will refer to as *true immortality*: the view that someone cannot cease to exist. In scenarios of true immortality, unending life is much more like a sentence imposed upon us, rather than a choice.

These four categories do not capture all the possible variations of lifespan and who can choose to extend or end it, and under what conditions. For example, in my accounts of radical life extension and contingent immortality, I am assuming that people can still choose to die. But we can imagine situations where this is not the case. For example, in the episode ‘White Christmas’ of the TV show *Black Mirror*, a sentient digital clone of a person is created and then tortured (through isolation and boredom) until they agree to work as a personal assistant. These digital people have no way of ending their own miserable lives—but they are not true immortals, as someone else could end them (Tibbetts 2014). Nonetheless, the four categories give us a clear starting place for our discussion, which we can always vary if we need to explore other possibilities. The categories are summarised in Table 1.1.

## 2.2 What Do We Mean by Living On? The Identity Criterion

Imagine that a great scientist, Professor Vitalonga, offers you eternal life. Given her reputation, you are curious, even cautiously optimistic. Vitalonga explains to you that all she needs to do is scan

Table 1.1 Categories of very long life

Category	Life expectancy	Immune to ageing and disease	Immune to accident, etc.	Able to die
Moderate life extension	120–160	No	No	Yes
Radical life extension	Centuries or more	Yes	No	Yes
Contingent immortality	Millennia or more	Yes	Yes	Yes
True immortality	Forever	Yes	Yes	No

your brain. Her scanner is wonderfully sophisticated and will record every detail of every neural connection. This, she argues, will capture your mind—the real you. Unfortunately, she can only capture this level of detail by removing your brain from your skull and cutting it into wafer-thin slices. These she will scan one-by-one, then vitrify and keep for her archives. Then she will take the complete scan of all your neurons and save it on an ineradicable disk, which she will keep in her indestructible safebox for evermore. Voila, immortality!

Now imagine a different scenario. Guru Whitbeard tells you that he can ensure this life is not your last: if you follow his daily regime of breathing exercises, you will be reincarnated in a new body, born the moment this one dies. Indeed, if you give him just ten thousand dollars, he will invest it wisely and transfer it tenfold to you in your next incarnation! You ask if your next incarnation will remember this one, your current life. Oh no, the Guru answers: just as that wee baby will be a freshly born body, so it will have a clean slate of memories, preferences, foibles, and so on. What then, you ask, will survive of you and migrate on to this new body? Your ineffable aura, he replies, which he can unerringly detect.

Would you accept Vitalonga's or Whitbeard's offers? I suspect not. You might have many reasons for your hesitation, including scepticism about whether they could deliver on their promises. But even if they could, I suggest we should still be hesitant—because what they are promising does not really sound like living on at all. In the case of the professor, it might really be a scan of *your* mind in her safebox, but a disk in a safebox does not sound like the kind of thing that could have a *life*. It would be inert, more akin to a book containing your biography on a library shelf. In the case of the guru, on the other hand, the baby that he claims is you will one day certainly be alive. But what would connect this new creature,

with its new body and new mind, to you now? Whatever an ineffable aura is, it does not sound like the kind of thing that can guarantee your survival.

As we saw in the previous section, there are many different scenarios that have been put forward as ways of living forever. But not all of these will seem genuinely like living on at all. Some sound like living on in a metaphorical sense only. Socrates argued that women and some men gain immortality by having children, while men who are ‘pregnant in the soul’, pursue instead ‘an immortality of fame’ (Plato 2015). But we do not literally live on through our children: my three daughters are all clearly separate beings with their own experiences, and when I die nothing will happen to transfer my life to theirs.<sup>2</sup> Similarly, the great Greek hero Achilles is not still with us to experience the world, even though the stories of his exploits at Troy are still told. As Woody Allen once said: ‘I don’t want to live on in the hearts of my countrymen; I want to live on in my apartment’.

When we consider various scenarios in order to help us answer the question of whether we should choose to live forever, we should first check that what is happening in that scenario really is an instance of the same person living on. This is usually referred to as the *identity criterion*.

Philosophers distinguish between two quite different meanings of ‘identity’, and we need to be clear which one we are talking about. Qualitative identity refers to two objects having exactly the same qualities. For example, two bottles of beer from the same factory could be identical in this sense, or even two human twins. That is not the kind of identity we need here. When I ask whether some person in the future is *really* me—say, a person who has just rolled out of the backup factory based on my latest scan—then I am asking about numerical identity. If  $x$  and  $y$  are numerically identical, then they are one and the same thing. For example, the baby born to my mother in January 1973 in Cornwall is numerically identical with the person typing these words—we are one and the same human being, even though we look very different.

This is a very important distinction, though it is sometimes blurred in discussions of immortality. Someone—let’s call them

2. While this is clear for humans, it is much less clear for some creatures: for example, bacteria, which are single-celled organisms, reproduce by dividing—so literally becoming both their offspring.

Aleph—might say that if they lived for a million years then the resulting person would ‘not really be them’. What Aleph might mean is that over the course of such an expanse of time, they would have changed to become utterly unrecognisable to their original self. Their appearance, beliefs, preferences, values, and even name might have changed. Let us call that future person Beth. It seems quite likely that Aleph would have little in common with Beth. However, this is a way of saying that they are not *qualitatively* identical—that they do not share all the same qualities. But this is also true of my current self and the baby born to my mother in January 1973. It does not tell us whether Aleph and Beth are *numerically* identical—whether they are one and the same person, just at different phases of their life.

Day-to-day, we rarely have trouble working out whether a certain person at one time is one and the same as a person at another time. We assume that people *are* their bodies (or at the very least that they continually inhabit their bodies), and bodies can be recognised, whether by the naked eye or more sophisticated means such as fingerprints or DNA. Consequently, if ten people leave to climb Mount Everest and only three return, we do not usually have trouble working out which of them are the survivors.

But millions of people around the world have beliefs about what they can survive that are much harder to verify. Many Jews, Christians, and Muslims, for example, believe that after they have died and rotted away there will be a Day of Judgement when they will be physically put back together (resurrected) to live again. Others, as we have discussed, believe they will live on as a soul in another realm. It is easy to tell a story that makes it sound like someone survived some extraordinary process (like ‘she closed her eyes and breathed her last ... then awoke bathed in light in the presence of angels’). But it is much harder to come up with a rigorous account of what a person *is* that would make such a story actually plausible. The questions of what a person *is*, and therefore what a person can survive, form a lively area of philosophical debate known as *personal identity theory*.

If we wanted to definitively answer the question of whether we *could* live forever, we would need to decide which theory of personal identity we think is right. For example, if you think a person’s identity over time consists in the survival of a particular human organism, you would likely think we could not live forever. But if you think a person’s identity over time consists in the

continuation of their indestructible, immaterial soul, you would reach a different answer.

However, our question is not whether it is possible to live forever, but the hypothetical one of whether we should choose to, if it were possible. For this question we can keep a more open mind about which theory of personal identity might be right. Nonetheless, we should also keep in mind that when talking about someone ‘living forever’, we are assuming that the identity criterion is being met. In some cases this will be a more plausible claim than in others.

### **2.3 What Do We Mean by ‘Should’? The Prudential and Ethical Criteria**

Our concern in this book is with whether we should choose to live forever. We have discussed the various meanings of ‘forever’, and what it means to live on. Now we need to explore what we mean by asking whether we should choose it.

Sometimes, whether we should choose a thing or not is simply a matter of taste. Say we are choosing T-shirts. You choose a blue one, and I choose a red one. I don’t think you are wrong to choose a blue one—I accept that it is simply your preference. You can’t explain *why* you prefer blue—you just do, just as I don’t have a reason for why I prefer red. Let us also assume that nothing further depends on our choice of colour: you choose blue, and I choose red, and that’s the end of it.

Is the question of choosing to live forever like that? Might you simply prefer to live forever, while my preference is to live to be 1,384? Most people who consider the question think not. It is too important and complex to be merely a matter of preference. The way we answer the question is related to what we value in life, our ideas of the future and of our place in the cosmos. If someone told us that they wanted to die at the age of 80 or of 1,384 or never, we would expect them to give reasons for this attitude, reasons that relate to their life goals, their values, and the foreseeable consequences of their choice.

What kind of reasons? Let us return to our T-shirts. I am about to choose the red one, when you point out to me that it contains nylon to which I’m allergic (say nylon gives me a painful rash). Like most people, I have a strong preference to be free of pain. I now have a

reason not to choose the red T-shirt. Let us call this a **prudential reason**. It would be imprudent of me to buy the red T-shirt, given the facts about its composition and my allergy, along with my preference to be free of pain. One meaning of ‘should’ or ‘should not’ relates to this kind of prudential reasoning: I shouldn’t choose the red T-shirt because doing so would be bad for me.

I will use the term ‘prudential’ to refer to these kinds of self-interested reasons. Very often, when philosophers are debating whether we should choose to live forever, they cite such prudential reasons. They argue,<sup>3</sup> for example, that if you lived forever, you would inevitably be terribly bored, then conclude that if you don’t want to be terminally bored, you should therefore not choose to live forever. Spelled out, the argument looks like this:

1. Living forever would inevitably be boring for you.
2. You do not want to be bored.
3. Therefore you should not choose to live forever.

Prudential reasoning is about what a person should do, or should want to do, given their underlying goals or preferences. In this argument, the underlying preference features in line 2—the preference not to be bored, and the conclusion drawn from it is in line 3.

We mentioned above that when assessing the desirability of a scenario in which someone is purported to live forever, we should check if it meets the identity criterion—whether it really is the same person surviving through this period of time. We can now add that the scenario should also meet what we can call the **prudential criterion**—that is, whether the life offered by the scenario is compatible with this person’s underlying goals and preferences. If not, they should not choose it.

There is another form of practical reasoning that is relevant. Take our T-shirts again. You are about to buy the blue one, when I point out that it is made by child labourers held in conditions close to slavery. You think making children work in such conditions is wrong. This isn’t a prudential reason, in the sense we are using the term, as it is not self-interested—it’s not about you and your welfare. Instead, it is about the welfare of people faraway whom you will never meet. Nonetheless, you think the

right thing to do is boycott this kind of T-shirt. This is an instance of **ethical reasoning**.

Ethical reasoning is the other important meaning of ‘should’ or ‘should not’. Whereas prudential reasoning relates to what is sensible, ethical reasoning relates to what is right or moral or just.<sup>3</sup> Needless to say, there are many different theories of ethics, from Confucianism to modern contractarianism, and from the Ubuntu philosophy of Africa to Aristotelian virtue ethics. These different theories take different approaches to many fundamental questions, such as the moral status of non-human animals, or whether and when war can be justified. But broadly speaking, what they have in common is that they are concerned with the impacts of our actions on others. In this book, I will use ‘ethical’ to contrast in a particular way with ‘prudential’: so whereas prudential reasoning is about what is in your interest, I will use the term ethical reasoning to mean what is in the interests of society as a whole. In later chapters, when we address some of the specific questions posed by the choice to live forever, we will look more closely at the answers given by different ethical traditions (for example, Hinduism and utilitarianism).

With this in mind, we can add a third criterion (to the identity criterion and the prudential criterion), which must be met if we are to say that we *should* want to live forever: the **ethical criterion**. To be met, the scenario in which we are living forever must be compatible with the interests of society as a whole (while noting that there are many different ways of interpreting that).

When people ask some ‘should’ questions, they are referring clearly to the ethical sense. For example, ‘should you boycott clothes manufacturers who use child labour?’ is unlikely to be about whether you personally would benefit from this action, and more likely to be about whether child labour is morally unacceptable and what should be done about it. Other ‘should’ questions are clearly prudential: ‘should you go for a run before or after lunch?’. But some questions could be either or both prudential and ethical. For example, many would interpret the question ‘should you eat meat?’ as ethical. But at the same time, many others would consider it also (even primarily) a prudential question about whether eating meat is

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3. I will use the terms ‘moral’ and ‘ethical’ interchangeably.

healthy or affordable. In a complex, interconnected world, many decisions have prudential and ethical elements, which frequently have to be weighed against each other.

I believe the question ‘should we choose to live forever?’ has both important prudential elements and important ethical elements. It will be easiest to give a straight answer to our question if these elements align—e.g., if it were both in my interests and society’s for me to live forever. For example, if society collapsed because of overpopulation, that would be bad for society and very likely bad for me as an individual too. But it is possible that these elements will prove to be in tension—for instance, it could be that living forever would be good for me, but bad for society (e.g., if it leads to me acquiring immense power and wealth). In such a case, the prudential criterion would be met, but not the ethical criterion. We would then have to do some careful weighing and carefully qualify the answer we give to our question of whether we should choose to live forever.

Despite these interconnections, it is worth separating these two meanings of ‘should’ and considering the two criteria in turn. Therefore Section 3 of this chapter will deal with the prudential reasons for and against living forever, while Section 4 will then deal with the ethical reasons.

## 2.4 Why the Question Matters

Before we move on, it is worth considering what is at stake. After all, some people might consider our question frivolous, because they believe that we cannot live forever. To them, the question of whether we should choose to or not does not arise. Such immortality-sceptics might well be right. However, I think there are a number of good reasons for considering our question.

First, the majority of people alive today believe that they *will* live forever. As mentioned earlier, over one billion people believe in reincarnation. Billions of others—Christians and Muslims, for example—believe that they have a soul that will live on in another realm, or that they will be physically resurrected in a paradise on Earth. Many of them might believe they have no choice in the matter. That is, they believe in *true immortality*, whereby we will all live forever whether we like it or not.

In that context, the question of whether we should choose to live forever—and the related questions of whether and how immortality might be good or bad—takes on a different note. It becomes

more like an inquiry into how we should try to imagine the eternal life that these religions promise, and whether it can really be as attractive as they claim. Theologians and other believers have debated these questions for centuries—indeed, the Gospels of the New Testament record Jesus debating this with the sceptical Sadducees two thousand years ago.<sup>4</sup>

Second, there are many who believe we can achieve much longer lifespans in this world. We live in an age of extraordinary scientific and technological progress, which has already brought breathtaking benefits to health and longevity. As a consequence, in the past few generations life expectancy in industrialised countries has doubled, from around 40—about the same as our most distant ancestors—to over 80.

This is an incredible achievement. Much of it is due to decreasing the chances of dying in infancy. But at the other end progress is being made, too, and diseases such as many forms of cancer that would once rapidly have been fatal can now be managed for long periods. The COVID-19 pandemic has shaken any idea that continued increases in life expectancy are inevitable (Santhanam 2021). However, optimists extrapolate from the trends of the past decades to argue that we can continue to live longer and longer (de Grey and Rae 2008). Some are also willing to put their money where their mouths are: healthcare has always been an enormous sector in modern economies, but now very large sums are going directly into anti-ageing research. Some of the richest people on the planet, such as Jeff Bezos (founder of Amazon) and Larry Page (co-founder of Google) are among those investing (Regalado 2021).

It is not clear whether these investments will radically transform human life expectancy. The upper-end projections, such as the idea that the first person to live to be 1,000 has already been born (de Grey 2004), seem unlikely. But breakthroughs are not impossible, and it is clear that many investors and scientists are determined to pursue them. We should therefore consider whether we as individuals or as a society want such breakthroughs. This in turn might shape public policy decisions: for example, whether to actively support anti-ageing research or not.

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4. Matthew 22:23–33; Mark 12:18–27; Luke 20:27–40.

## Techno-Optimism and Transhumanism

Techno-optimism is the belief that technology will make society better. Of course, ‘better’ means different things to different people. But one thing it is often taken to mean is that our lives will be healthier and longer. One version of techno-optimism that particularly focuses on longevity is transhumanism. Transhumanists believe we can and should use technology to radically improve ourselves—so much that we transition to being *post-human*. Numerous influential transhumanists, such as Nick Bostrom and Ray Kurzweil, have advocated for the possibility and desirability of using technology to radically extend our lives. Transhumanism has been defended by some as a natural extension of humanist and Enlightenment thinking, and criticised by others for ties to racism and eugenics.

Third, the question of whether or not we want to live forever can shape our attitude to the lifespan that we have. To take two extreme examples: someone who believed that they had an immortal soul, but who believed that immortality would be terrible, might live their lives in utter dejection. Or someone who thought earthly existence was all there was, but who desperately desired to live forever, might go through their days feeling thwarted and despondent. On the other hand, those who believe death is the inevitable and final end might find that belief easier to accept if they believe also that life without such an end would be a curse.

This first part of this opening statement has focussed on clarifying the question ‘should we choose to live forever?’. We looked at what we mean by ‘forever’, what we mean by ‘living on’, and what we mean by ‘should’.

To help make sense of ‘forever’, we distinguished between four different ways of living longer:

- *Moderate life extension*: extending life expectancy to somewhere between 120 years and 160 years.

- *Radical life extension*: defeating ageing and disease, so that people could live indefinitely, unless and until some outside shock put an end to them.
- *Contingent immortality*: being able to live indefinitely, but also being able to die if one so chooses.
- *True immortality*: not being able to die; not being mortal.

In our discussion of what it means to *live forever*, we noted that there were many different theories of personal identity—that is, theories of what living on for humans consists of. Some people believe we live on only through the continued functioning of our bodies; others that we can be uploaded onto computers; and others still that we survive because our souls survive. We do not have to decide now which one of these theories we find most plausible. But when examining a scenario which claims to be about living forever, we should check that it could plausibly meet the *identity criterion*. That is, we should be sure that the scenario convincingly describes an instance of the same person living on.

We then distinguished two different meanings of the word ‘should’:

- *The prudential criterion*: whether the life offered by a given account of living forever is good for a given person; whether it is compatible with their underlying goals and preferences.
- *The ethical criterion*: whether the scenario in which we are living forever is moral or just; whether it is compatible with the interests of society as a whole.

Finally, we identified three reasons why the question matters. First, lots of people alive today believe that they will live forever. It seems therefore worth examining whether that is a happy prospect. Second, some people alive today are actively pursuing much longer lives. We should therefore consider whether this is a good idea that should be supported. Third, we noted that our attitude to living forever could impact our attitude to death and the life we live now.

Next, in Part 3, we begin our enquiry in earnest, by examining the prudential reasons for and against wanting to live forever.

### 3 Prudence: Would Living Forever be Right for Me?

Often, if a person is wondering whether some option is the right one for them, they could try that option and see. Failing that, they could look at how others who have made that choice have fared. The oldest person alive at time of writing is 115 (some way from the age of the oldest person ever to have lived whose dates are well-documented: Jeanne Calment, who lived to be 122). Perhaps we could ask such ‘supercentenarians’, as they are called—people who are still going strong a decade or more after their hundredth birthday—whether such long lives are worth pursuing.

But while we might be able to learn something from polling such people, neither side in our debate would be content to leave matters there. If it turned out that supercentenarians were all miserable, the immortality-optimist could argue that this was due to their declining physical well-being. By contrast, in the futuristic scenarios they sketch where ageing and disease have been defeated, people aged 120 would still feel in their prime—and this would be a wholly different experience to that of the elderly today. Equally, if it turned out that this group was still full of the joys of spring, this would not convince the sceptics that we should pursue immortality. The age of 120 might seem extraordinary by current standards, but it is a small fraction of the thousand years some optimists promise, and an infinitely small fraction of forever. Perhaps despair sets in at a million?

So we cannot rely on experience—our own or that of others. We must therefore *speculate* about whether living forever is to be wished for. Fortunately, humans have been doing this for centuries. There is a rich tradition of myths, legends, stories, plays and other works, providing a wide range of visions, from gods bickering on mountaintops, to cursed undead roaming the earth, to those who have found bliss by eternal springs. They are, of course, only speculations. But the best of them have provided a toolkit for philosophers to think through the implications of unending life. In the discussion that follows, we will look at two stories that have been much debated in the literature: the 1922 play *The Makropulos Secret* by Karel Čapek, and the 1947 short story ‘The Immortal’ by Jorge Luis Borges. Alongside some speculations of our own, they will provide

case studies for exploring the main worries regarding whether unending life would be good for any given individual: boredom, ennui, meaninglessness and procrastination. We will now look at each of these problems in turn, before drawing some conclusions.

#### 3.1 Boredom

Karel Čapek’s play *The Makropulos Secret* begins in 1919 with a century-old court case about who should inherit an aristocratic estate.<sup>5</sup> It so happens that a glamorous and exceptionally accomplished opera singer called Emilia Marty is performing in the city as the case comes to a head. When she hears of it, she intervenes, revealing an astonishingly detailed knowledge of the protagonists from a hundred years before, especially a singer called Ellian MacGregor. As the plot unfolds, it becomes clear that Emilia and Ellian are one and the same: a person whose real name is Elina Makropulos, born in Crete in 1585. Her father was court physician to Emperor Rudolf II, and was tasked to create an elixir that would grant those who drank it 300 years of youth. He first tested the elixir on his daughter, Elina, who fell into a coma, upon which the Emperor threw the physician in prison. But a week later, Elina awoke and escaped with the formula for the elixir. In the subsequent centuries she assumed various identities, always with the initials E.M., but also lost the formula. As three hundred years have passed, she is desperate to find it again—and does so, among the papers of the disputed estate.

*The Makropulos Secret* is a play about the desirability of radically longer lives. The case for taking the elixir is made by the lawyer Vitek:

Let’s give everybody 300 years of life! This will be the greatest event since the creation. It will be a liberation and a new beginning. God, what can be done with a man in 300 years! Fifty years to be a child and a student, fifty years to understand the world, a hundred years to work and be useful, then a hundred years to be wise and understanding, to rule, to teach and give example! Oh, how valuable would a human life be if it lasted 300 years! There would be no wars, no more of that

5. The Czech title, *Věc Makropulos*, literally translates as ‘The Makropulos Thing’. It has been variously translated into English as ‘The Makropulos Affair’, ‘The Makropulos Case’, or ‘The Makropulos Secret’.

dreadful hunt for bread, no fear, no selfishness. Everyone would have dignity and wisdom.

(Čapek 1990, 169)

E.M. herself, however, is not filled with such a sense of possibility. She has become cold and arrogant, indifferent to the ordinary mortals around her. She callously rebuffs their expressions of love. Nothing interests her, not even her profession: ‘to sing is the same as to be silent’, she says (Čapek 1990, 174). She is seeking the elixir only because she is, she admits, afraid to die. But in the end, she decides she cannot bear to live longer. She offers the formula for the elixir to the assembled characters, who all refuse, until one young woman takes it and burns it over a candle.

Philosophers have interpreted the story of E.M. as an argument that living forever would inevitably be unbearably boring, so much so that death would be preferable. Of course, no one has lived long enough to know whether this is really true. So the argument is based on certain claims about human nature and the nature of experience. It often runs like this:

*The argument that living forever would inevitably be boring*

1. There is a limited number of distinct pleasurable activities that a person can engage in.
2. No matter how pleasurable an activity, it will become boring if repeated often enough.
3. If a person lives long enough, they will eventually engage in all pleasurable activities to the point that they become boring.
4. Therefore anyone who lives long enough will inevitably become perpetually bored.
5. If a person is perpetually bored, their life is not worth living.

We can use this argument to look more closely at the case of Elina Makropulos. Premise 1 is that there is a finite number of different pleasurable activities a person can pursue. Presumably at some point E.M. loved singing—and other things too, the play suggests, such as dancing and lovemaking. But there is not an infinite variety of activities she enjoyed.

Of course, there is a *very* wide variety of activities that humans enjoy, from underwater cave exploration to tinkering with old motorbikes to flower arranging. But that does not mean that any particular individual, with their particular preferences and talents,

will enjoy all these things. Perhaps E.M. tried underwater cave exploration and exhausted its possibilities—but more likely, given what we know of her character, she would have found it ridiculous or unpleasant.

We could imagine someone more open-minded and even longer-lived than E.M.. Such a person might find joy in a vast range of activities from motorcycle repair to opera singing. But there is not an *infinite* range of such activities. If we live long enough, we will eventually have pursued all kinds of music, all kinds of ball games, all kinds of outdoor exploration, and so on.

An immortality-optimist could reply that we are not looking closely enough, that in reality there is an endless variety of experiences to be had, of games to play, of artworks to be created or appreciated, of puzzles to solve—and a whole universe to explore. In a narrow sense, they might be right. Take the geometric paintings of Piet Mondrian, which consist of horizontal or vertical lines, with the lines themselves and the spaces they contain rendered in black, white or primary colours. Mondrian himself produced a great range of these works. Perhaps there is a potentially inexhaustible variety of such paintings waiting to be composed, with lines of different thickness, positioned subtly differently, on canvases of different sizes. But while each work might be technically distinct from the others, it is hard to believe that any given human would find interest in every possible variation. Ten variants might each contain surprises; perhaps even a hundred. But it is hard to believe that a thousand would, or a million.

Many other pursuits might be like this: perhaps it is possible to come up with an endless variety of cooking styles or board games. But this would only be possible through changes so subtle that they would no longer engender anything like the excitement of someone trying, say, ajapsandali (a delicious stew from Georgia in the Caucasus) for the first time. We are finite creatures: our nervous systems and sense organs, our characters and dispositions, are capable of recognising only a limited range of experiences. While that range might be immense, it is not infinite.

By itself, the fact that humans are capable of recognising and enjoying only a limited range of experiences is not enough to demonstrate that living forever would be boring. To demonstrate that, we need the further premise—Premise 2 in the argument above—that any activity will cease to be pleasurable after enough repetition. It would not matter that Elina Makropulos loved only

singing if she found joy in singing forever. But she does not: after three centuries, she has tired of it.

This is probably the most disputed premise in the argument that living forever would be boring. In current lifespans of 70 or 80 years, many people find continued pleasure in the same pursuits: lifelong support of a local football team, for example, or eating annually a favourite festive dish. If a person has a wide range of interests and tastes, she need not return to the same thing every day, or even every month. She might enjoy listening to a song that she has not heard for years; she might re-read a novel and see in it new themes. She might alternate her favourite foods in a cycle lasting a year or more, so that each time she sits down to, say, Thai green curry, it is with eager anticipation.

It seems hard to prove or refute the claim that any activity will cease to be pleasurable after enough repetition. To some people it seems obviously true, to others obviously false. The sceptic might say to those who still enjoy green curry after 80 years, that this timespan is nothing compared to the millions of years that make up forever. Perhaps this is a question of personalities: some people will be bored of all their pursuits after a century—just as some people are easily bored today. As the novelist Susan Ertz put it, ‘millions long for immortality who don’t know what to do with themselves on a rainy Sunday afternoon’ (Ertz 1943).

But the optimist could shrug this off and argue that the proper rotation of pleasures will keep them fresh. Christine Overall notes that other creatures do not seem to tire of certain simple pleasures: think of the pet dog that each day rejoices at breakfast and a nice walk (Overall 2003, 146). This is perhaps a telling analogy. Philosophers sometimes suggest that an immortal could happily spend eternity in contemplation of the universe. But perhaps it is more likely that it would be the simplest folk who would be easiest to please forever: those who are happy with breakfast and a nice walk, and who only dimly remember what they did the day before.

But it is worth noting that the stories the immortality optimists tell about how they can avoid boredom frequently feature entirely unrealistic assumptions about the world. They consist of fantasies in which their favourite food stuffs are available exactly when they want them, new partners—in love, work or play—are always available, creative expression can be pursued at leisure, and their chosen work is available as much or as little as they would like. Of the nearly 8 billion people alive today, very few if any could claim

to lead such a life. Even for the tiny fraction who do currently have a life somewhat like this, it is far from guaranteed that it will continue so. History teaches us that civilisations rise and fall.

What is remarkable is that even when considering highly idealised, entirely unrealistic scenarios about what life might be like, still the question of whether boredom is inevitable or avoidable is hotly debated. Recall that our question is whether we should choose to live forever. In this section, we are considering this question in prudential terms: that is, whether for a given person, considering only their individual interests, it would be rational for them to choose to live forever. In the light of the boredom argument, we can draw the preliminary conclusion that this would be a highly risky choice, as even under the most favourable circumstances imaginable—circumstances highly unlikely to pertain—it is debatable whether terminal boredom could be avoided.

However, the seriousness of the boredom problem will vary according to the category of longer life we are considering. Recall that our four categories are: moderate life extension, radical life extension, contingent immortality, and true immortality. In scenarios with moderate life extension, people are living to between 120 and 160 years. In these scenarios, we can concede that boredom is unlikely to be a major problem for most people—or at least no more than it is with current life expectancies around 80. But we also noted above that 160 years can hardly count as a meaning of ‘forever’.

We are taking radical life extension scenarios to be those in which people are immune to ageing and disease, but not to other shocks such as bomb strikes. In these scenarios, lifespans could vary widely, from 5 to 5,000, depending on the likelihood of those external threats. Given this uncertainty, few people offered an elixir might trouble themselves about a distant prospect of being bored centuries hence. Of course, terminal boredom might well set in among those who live long enough, but we currently do not have enough evidence to know when that would be.

However, in our radical life extension scenario, people are free to choose to die. Like Elina Makropolis, they could decide one day to refuse the elixir that kept ageing at bay. This ‘exit clause’ could make a difference to a person’s deliberation about whether they should ‘live forever’: if living forever meant living a few centuries and having the choice to die if one wishes, then the problem of boredom might not dissuade someone from taking an elixir. The same argument could even apply to the case of contingent immortality—that is,

scenarios in which people are able to live indefinitely, but could still choose to die. Even if someone felt that boredom was inevitable, but did not know when it would occur, they might choose to take an elixir, as it could mean a thousand years of fun before it all becomes stale. However, we will see in Chapter 3 that the ‘exit clause’ might be less helpful than it first seems for considering the attractiveness of immortality.

The literal meaning of ‘forever’ corresponds to what we are calling true immortality: living without end (whether one likes it or not). This is not a state we could aspire to through medical science and improved road safety. But as noted, billions of people around the world believe it is their fate. It is this category of living forever that is most threatened by the boredom argument. In scenarios of true immortality, living on is inescapable. If we therefore accept the first two premises of the boredom argument—that there is a limited number of pleasurable activities a person can engage in, and any pleasurable activity will become boring if repeated often enough—then in the case of true immortality, boredom does become inevitable.

Those religious belief systems that ascribe to true immortality attempt to deal with this in various ways. Islam would perhaps fare least well of the major religions, as it posits a paradise based largely on sensual pleasures, such as food, drink, and soft furnishings (Rustomji 2009). Christian accounts vary from equally sensuous interpretations, described by religion scholars Colleen McDannell and Bernhard Lang as ‘anthropocentric’, to accounts that are ‘theocentric’ or more focused on being with God (McDannell and Lang 1988). The theocentric accounts are partly a response to the problem that an eternity of fine wine and food might become insipid. But they largely try simply to wave the problem away, arguing that being with God just will be blissful, and not like any pleasure we know on Earth. Sophisticated theologians recognise that with our predispositions to envy, anger, boredom, etc., permanent bliss is not a state that ordinary humans can readily aspire to. So they suggest that we will be radically transformed, perhaps even merging with the Godhead, or in the words of Pope Benedict XVI, becoming part of ‘the new ‘space’ of the body of Christ, the communion of saints’ (Ratzinger 2007, 237). These accounts, however, seem to violate our identity criterion: that a person must genuinely live on.

That is the dilemma the boredom problem poses for those who believe in true immortality: as finite beings, humans cannot be happy for infinity; so to be happy for infinity, they must lose their humanity.

A state of permanent bliss for all is one in which we have no individual goals, no traits or quirks to mark us out from one another, no individual personalities at all. It is a state in which we are reduced to less than contented infants, one in which all identity is lost to the extent that it is hard to tell eternity apart from oblivion.

### 3.2 *Ennui*

For many people, the idea of boredom conjures something like standing in a long queue. It is a state in which we are temporarily unable to pursue our goals or interests. But after three centuries of life, Elina Makropolus’s affliction is much worse than that. She tries to describe an affliction that will not go away:

Boredom. No, it isn’t even boredom. It is ... it is ... oh, you people, you have no name for it. No language on earth has a name for it.

... Everything is so pointless, so empty, so meaningless. You are all here? It seems as if you are not. As if you are only things ... or shadows.

(Čapek 1990, 173)

E.M. is arguing that what she feels goes beyond regular boredom. It is an emptiness that never leaves her, wherever she goes, and whatever she does. She says that ‘no language on earth has a name for it’, but the English usage of the French word *ennui* might come close. *Ennui* is sometimes used to describe a state of listlessness, similar to some of the symptoms of what we nowadays call depression. If boredom is how you feel when waiting in the queue (for a movie, say), then *ennui* is what you are experiencing if you get to the end of the queue, watch the movie, and still don’t feel any better. It is an inability to get excited about anything, or to enjoy anything, or to feel you can take part with any enthusiasm in any of the ordinary activities of life.

As we saw in the last section, the problem of living forever has often been framed as one of boredom. But *ennui* seems to be a better description of E.M.’s experience, and of the tedium of unending life. Imagine a future society that has conquered ageing and disease, and also developed wondrous pleasure domes to keep people entertained. These pleasure domes can simulate the most amazing experiences, with sensory stimulation, mysteries and puzzles, challenges and

battles, romances—whatever genre of adventure one favours. If an inhabitant of this society is bored, they simply go to the pleasure dome to experience the thrills. We can imagine the thrills are such that it is hard to be bored, in the usual sense, while on one of these adventures. But we can also imagine that after centuries of this life, the inhabitants nonetheless start to feel ennui. The pleasure dome might get the participant's adrenaline pumping for a while, but afterwards they might feel stale and empty. Despite the thrills, we can imagine that such a life would come to seem dreary and pointless.

This risk lurks also for the immortality optimist who believes that the proper rotation of pleasures would help them avoid boredom and stay perky for infinity. It might be true that after a century of other dishes, a person could again relish a Thai green curry. But it might also be true that ennui would set in after years of this hedonistic lifestyle, that the immortal would stop enjoying green curry, not because they have had too many green curries in the previous millennium, but because they are tired of eating three times per day, of dressing and undressing, of the subway ride to the pleasure dome, and so on.

This kind of ennui seems to be E.M.'s fate. It is a state that combines boredom with the sense that life has become pale and pointless. It seems to me a much more serious worry than that of boredom as it is usually conceived. We know that ennui, as we are calling it, is a very real condition. It was a major theme of late nineteenth- and early twentieth-century literature, where it was portrayed as a condition of the privileged classes—those who found their lives of leisure empty and tedious. Now in the twenty-first century, more people are comfortably off than ever, and more people are diagnosed with depression than ever.

I suggest we should take this worry seriously, although it would be hard to prove decisively that ennui would be inevitable for everyone after they had lived a certain amount of time. But other authors have made arguments that unending life would inevitably, in various related ways, become meaningless and thus intolerable. It is to these arguments that we turn in the next section.

### 3.3 Meaninglessness

The short story 'The Immortal' by Jorge Luis Borges claims to be a first-person account by Marcus Flaminius Rufus, an army officer of ancient Rome. Rufus hears one day of a legendary City of the Immortals, with a river that 'cleanses men of death' and sets off

with two hundred soldiers to find it. Through disease, desertion and mutiny he loses his companions, and finds himself alone in a mountainous desert. Almost dying of thirst, he comes across a stream. Around it live people he describes as troglodytes—'naked, grey-skinned, scraggly' (Borges 1970, 138). On the other side of their dwellings—crude niches cut into the rock—is the city he seeks. But it is not what he expects.

The city's walls are impenetrable, but he finds a way in through an underground labyrinth. Inside, he finds a subtle horror: nothing in the city makes sense. Staircases are inverted, hanging upside down; corridors lead nowhere; grand doors lead only to pits. 'The gods who built it were mad', he concludes, as he escapes the city (Borges 1970, 140).

Waiting for Rufus outside is one of the troglodytes, who follows him about like a dog. Rufus calls him Argos, after the Greek hero Odysseus's dog, and tries to engage him in conversation, but to no avail.

I thought that Argos and I participated in different universes;  
I thought that our perceptions were the same, but that he combined them in another way and made other objects of them;  
I thought that perhaps there were no objects for him, only a vertiginous and continuous play of extremely brief impressions.  
I thought of a world without memory, without time.

(Borges 1970, 143)

Then one day it rains; Rufus and the troglodytes all rejoice, and eventually Argos speaks and the truth is revealed. The 'troglodytes' are the Immortals. They once built a magnificent city, but found in it no satisfaction and built instead its parody. Then they retreated to their current existence, removed as much as possible from the physical world: 'I remember one whom I never saw stand up'; recalls Rufus, 'a bird had nested on his breast' (Borges 1970, 145).

The man Argos is revealed to be Homer, composer of the *Iliad* and the *Odyssey*. At first, Rufus is greatly impressed. But then he realises:

If we postulate an infinite period of time, with infinite circumstances and changes, the impossible thing is not to compose the *Odyssey*, at least once. No one is anyone, one single man is all men.

(Borges 1970, 145)

After some centuries have passed, the Immortals hit upon the idea that if there is a river that makes humans immortal, there must somewhere be another that would make them mortal, and they disperse around the world to find it. Rufus, who had unwittingly became immortal on drinking the stream of the troglodytes, in October 1921 finds that stream's opposite.

The story is only 14 pages, but incredibly rich, containing many claims and arguments about the nature of living forever. Let us try to unpack some of them. Borges is suggesting that an immortal will eventually find the kind of pursuits that occupy us mortals to be meaningless. His immortals have wholly withdrawn from the world; they have stopped even perceiving it as we do—with engagement, interest and urgency. Why should this be? Because they have done everything there is to be done: 'in an infinite period of time, all things happen to all men' (Borges 1970, 144). This seems like one of the premises of the boredom argument, but Borges's point is a different one. As everyone eventually does everything, values start to become meaningless: everyone has performed 'all goodness' but also, he writes, 'all perversity'. Everyone's actions balance out, leaving them characterless: there are no heroes and villains among the immortals, but each of them is both and everything in between.

This makes the immortals indifferent to the world and each other. When one falls into a quarry, it is seventy years before the others help him out. No action seems worth taking, because:

every act (and every thought) is the echo of others that preceded it in the past, with no visible beginning, or the faithful presage of others that in the future will repeat it to a vertiginous degree. There is nothing that is not as if lost in a maze of indefatigable mirrors. Nothing can happen only once, nothing is preciously precarious.

(Borges 1970, 146)

We can see these immortals as beset by meaninglessness. For them, every action is meaningless precisely and literally because it has no *significance*, no meaning as part of a greater project or goal.

Compare this to a mortal life. The choices we make in our relatively brief lives have immense significance. We choose which projects to pursue; we strive after goals, and we decide which virtues to live by. In a life in which people have only one or two

careers, a handful of hobbies, and an equally limited number of meaningful relationships, decisions about which careers, hobbies, and relationships etc., are enormously consequential. Those decisions not only give shape to our lives, but give each of us an identity; they make us who we are as individuals. These choices—whether to care for a child or open a cafe or fight for a cause—give us goals that drive us forward, and reasons to live well.

The message of Borges's story is that without the prospect of death, all this disappears. None of us will have a distinct identity, as we will all in time raise children—sometimes well, sometimes badly—and open a cafe and fight for a cause, and indeed do everything else under the sun. There will be no virtue, as we will all eventually do the right thing and the wrong thing. There will be no purpose, as all things will come and go, rise and fall. The philosopher Martha Nussbaum summed up the core of this argument: 'the intensity and dedication with which very many human activities are pursued cannot be explained without reference to the awareness that our opportunities are finite' (Nussbaum 1996, 229).

We could try to summarise this multifaceted argument thus:

*The argument that living forever would result in meaninglessness*

1. If a person lives long enough, they will eventually do an immense variety of things—even all possible things.
2. If a person does (and believes they will continue to do) a sufficiently immense variety of things, then individual projects will lose their significance.
3. If all people do a sufficiently immense variety of things, then they will cease to have distinct identities.
4. If all people do a sufficiently immense variety of things, then categories of virtuous and vicious, good and bad, cease to have meaning.

The immortality optimist might respond that a person is not required to do all things given indefinite time. They do not have to raise children, sometimes badly and sometimes well, or be a priest and a murderer, a street sweeper and a movie star. With sufficient determination, an immortal could carve out a distinct and delimited existence, by, for example, just staying in their apartment and playing the trombone.

There are many things to say in response to this, but let us focus on two. First, in arguing that every immortal will engage in all

possible human activities, Borges is indeed making some strong assumptions about human nature and the way the world works. On the face of it, it seems theoretically possible that someone could spend eternity in their apartment playing the trombone. But I agree with Borges that that would not really be possible for any person who is anything like an ordinary human alive today. People need to get out and engage with the world, and the world is continually changing, sweeping people up in its movements and fads, from communism to Rubik's Cubes. While Borges might be overstating the case, given what we know of humans and human society, it seems to me overwhelmingly likely that an immortal will indeed engage in an immensely wide range of activities, many of which seem at opposite ends of the moral spectrum, or which in other ways seem contradictory.

Second, if an immortal tries to avoid the problem of meaninglessness by engaging in only a few activities, then they will fall foul of the problem of boredom. Recall that the problem of boredom arises when certain favourite activities are repeated endlessly. Eventually, anyone will grow weary of Thai green curry or playing the trombone. The immortal therefore faces a dilemma: if they restrict themselves to a few favoured activities, in order to give their life shape and meaning, they will encounter the problem of boredom. But if, on the other hand, they engage in a very wide range of activities in order to avoid boredom, then they will encounter the problem of meaninglessness, as their activities lose significance and their lives lose distinctiveness.

However, as with the boredom problem, the problem of meaninglessness will not impact all categories of immortality equally. Scenarios of moderate life extension—with people living to between 120 and 160 years—hardly seem long enough for meaninglessness to become *inevitable*. (Although again it is worth reminding ourselves that many people in industrialised countries today already suffer from apathy and gloom.)

In scenarios of radical life extension, wherein ageing and disease have been defeated, very long lives are imaginable—with some assumptions about continuing socio-economic stability, these could be more than a thousand years. This does seem long enough for a deep sense of pointlessness to set in. Borges thinks so: we are not given the year of Rufus's birth, only that his adventure began 'when Diocletian was emperor' (Borges 1970, 135), which would make Rufus about 1650 years old at his death. Of course, we are in the

realm of speculation. Perhaps to some, the changes of the past thousand years would seem wondrous and inspiring, leaving their zest for life still strong. But we can equally imagine others for whom it would seem a wearisome cycle of venality and war.

Our next category is contingent immortality, in which unending life is possible, but so is ending it. Lifespans in such scenarios could stretch for millennia, which certainly seems to be long enough for meaninglessness to set in. When considering whether we should choose to live *forever*, I suggest the answer should be no, on the grounds that meaninglessness will become inevitable. But in a scenario of contingent immortality, the question might be more like: 'Would you choose to take an elixir of life that will make you immortal until you choose otherwise?'. Some people might say no, on the grounds that they would like to go before their lives became so boring and meaningless that suicide seems preferable. But others might think a few decades of miserable apathy at the end would be a price worth paying for centuries of good times (though, as noted above, we will discuss in more detail the usefulness of an 'exit clause' in Chapter 3).

As with the problem of boredom, those who should be most worried by the problem of meaninglessness are those who seek or believe in true immortality. They have no choice but to live for the kind of timespans at which Borges's worries become most plausible: they will witness all pleasures and all profanities; they will see the cycles of history churn endlessly. Not only will they, after some extraordinarily long time, have seen all these things, but in addition they must live in the awareness that they are condemned to keep seeing them. As Borges writes, 'what is divine, terrible, incomprehensible, is to know that one is immortal' (Borges 1970, 144).

As we have seen with the problem of boredom, religions that profess immortality tend to brush these challenges aside, rather than confront them. In the Christian New Testament, Jesus argues that the afterlife will be very different from this life: 'people will neither marry nor be given in marriage; they will be like the angels in heaven' (Matthew 22:23–33). But it is not clear what it means to be like the angels.

Elsewhere, the Bible suggests that people will undergo a radical transformation on entering the afterlife—that they will acquire new, spiritual bodies (1 Corinthian 15:42–44). But here the immortalist faces the same dilemma they encountered with the boredom problem. Imagine upon death, believers are transformed

into incorruptible angelic beings who never tire of worshipping at the throne of God for eternity. Perhaps we can imagine such beings, but they don't sound much like any actual people I know. In other words, this scenario would violate the identity criterion—the requirement that the desirable immortality we are imagining for a person genuinely counts as that person continuing to exist. But if, on the other hand, a person continues to exist much as they are, then they will be susceptible to the problem of meaninglessness.

The problem of meaninglessness is partly backward-looking in time—that is, it concerns what a person has already experienced. But it is also partly forward-looking. That is, it partly concerns the daunting prospect of endless years to come. Such problems of looking forward to an indefinite future are less explored in the literature, but also important. It is to those that we turn next.

### 3.4 Procrastination

Those immortals who succumb to meaninglessness could be both weary of the cycle of events that they have already experienced and also thrown into despair at the prospect of endlessly repeating them in the future. But there are other problems arising from the prospect of an endless future. One of them we will call the **procrastination problem**.

Above, I argued that the constraint of finite time makes our decisions matter—these decisions, because they are limited, define who we are. But the constraint of finite time has another effect on us: it galvanises us to action. Knowing that we are mortal and our time is limited shapes our every decision. We cannot postpone indefinitely the things that are important to us; or if we do, we risk lying on our deathbed filled with regret.

In other words, death is the source of all our deadlines. If we live forever, these deadlines disappear. There is an idiom: 'life is too short to [x]', where x can be 'grumble', or 'hold grudges', or 'stay in bed for weeks watching TV and eating cold pizza'. But if we lived forever, life would not be too short for these things. It would be impossible to waste time, because there would be an infinite amount of it. As a rule, the value of a thing is related to its scarcity. If it were infinite, time would therefore have no value.

Yet the value of time is a crucial consideration in our decision-making. To take an example: imagine you have found the elixir and are working hard to save for a fantastic holiday to celebrate your

good fortune. You are thinking of packing your bags when your employer says to you that if you work one more week she will give you a bonus of \$1,000. If you were mortal, in making this decision you would have to weigh the value to you of the money with the value to you of your limited time. But as an immortal, you have all the time in the world—if you worked an extra week, you would still have an infinite amount of time ahead of you in which to take your holiday and do everything else you have ever dreamed of. So by sacrificing a week, you lose nothing. But money you still need: and the more you have, the longer you can enjoy your holiday—after all, you are only limited by the amount of cash you have; time you have in abundance.

It is therefore rational for you to accept your employer's offer: you get much-needed extra money, yet lose nothing. Next week, however, she offers you the same deal. As you still have infinite time ahead of you, it makes sense for you again to take the cash. But the week after that she offers you the deal again ... and again ... forever. Your dreams of seeing the world have turned into an eternity chained to your desk.

That example might seem rather contrived. But the point is that knowing our time is limited permits us to rationally decide how we wish to spend it. One of the Psalms in the Bible has us sing 'Teach us to number our days, that we may gain a heart of wisdom' (Psalm 90:12). Understanding that our days are numbered allows us to make wise decisions about how to allot them. Because they are numbered, there comes a time, as the Bible also says, to put away our childish things (1 Corinthians 13:11). But would a child who had drunk the elixir ever become an adult? We mortals spend roughly the first quarter of our lives preparing for life's labours, and the last quarter enjoying their fruits (if we are lucky). But infinity cannot be divided up into neat portions: there is no such thing as a quarter of endlessness. Yet our lives are shaped by such questions: How much education is enough? How much leisure is enough? How much time spent earning is enough? When time itself has no value, these questions have no answer.

It is a common enough problem today already that people waste their lives, forgetting that they are finite: whether it is spending their time in idleness instead of pursuing their dreams, or doing a job they dislike instead of spending time with their loved ones. Those who experience brushes with death frequently comment on the renewed appreciation it gives them of the preciousness of each minute

(Lipsenthal 2012). But for the immortal, each minute is not precious; indeed, it has no value at all, because endless more will follow.

Like those problems we examined earlier, the seriousness of the problem of procrastination will vary depending on which category of ‘living forever’ is under consideration. In cases of moderate life extension (120–160 years), the problem will be only a modest amplification of what it is today. That is, we could expect plenty of people to waste plenty of time. But the problem should not be paralysing. No one would be expecting to literally live forever, so it would not be the case that time loses all value.

In cases of radical life extension, wherein lifespans could vary enormously in length, the problem takes on a different character. We saw above that it becomes impossible to rationally apportion one’s time when it is infinite. In cases of radical life extension, it is not infinite, but could be much longer than today—thousands of years perhaps. But it also could be very brief—recall that this scenario imagines only immunity to ageing and disease, not drive-by shootings and riding accidents. It would certainly be very hard to properly apportion one’s time when it could stretch to millennia. Procrastination would surely reach new levels, as any sense of wasting one’s time would diminish in proportion to the increase in its availability.

But apportioning one’s time would also be made difficult by the uncertainty. Of course, we live with uncertainty today. But in industrialised countries, the chances of reaching around 75 years of age are good. It is therefore prudent to follow the well-established model of two decades of education, four decades of work and saving for retirement, and so on. The uncertainty increases enormously, however, when considering lifespans that could last centuries, given the possibility of radical societal and environmental upheaval in that time. It would therefore be very hard to make a rational decision about, for example, how much time to spend in education, or how much to save for retirement, and so on.

Cases of contingent immortality are different in this regard, as we are assuming in these scenarios that the immortal could live forever if they so choose. They are therefore not faced with the same degree of uncertainty. But they are faced with the prospect of endless time. Of course, we are allowing that they could choose to end their days. But we can presume for the majority that they are not planning on doing so at a fixed point in the future, and that they must therefore make their decisions based on the possibility of

infinity stretching before them. (Perhaps an infinity in which there is little to do, if everyone is procrastinating, instead of engaging in creative, productive pursuits.) The true immortal, who is obliged to live forever, must also make their decisions in the knowledge of an unending future. As we have seen, making any kind of rational decision about how to spend one’s time when it is infinite is extremely difficult, perhaps even impossible. In this light, Borges’s portrayals of the immortals—lying in shallow pits, watching the passing of the celestial bodies above them—seems as reasonable and realistic as any.

### **3.5 Weighing the Prudential Arguments**

Recall that our focus in this part of the book is whether living forever would be the right choice for a given individual such as you or me, considering only what is good for that individual. We have called this the prudential criterion: whether living forever would be compatible with that person’s underlying goals and preferences. From the prudential point of view, there must be a strong presumption in favour of living on—or not dying. The great majority of most people’s goals require that they are alive: whether that goal is getting a black belt in karate, teaching a child to play the piano, or seeing a favourite football team win the trophy. To argue that it would not be in a person’s interests to live forever is to argue that there will come a point when they are better off dead: that is, when dying is more compatible with their underlying goals and preferences than living.

We can imagine two scenarios in which someone might conclude that they were better off dead, one more focussed on preferences, the other on goals. In the first scenario, some of a person’s core preferences are not being met. These core preferences could include wanting to be happy, to enjoy life, to not suffer, and so on. If these core preferences are not being met, and have no prospect of being met, then a person might consider that their life is not worth living. In the second scenario, someone might simply lack any goals that require them to be alive, anything that propels them positively into the future. Such a person might therefore conclude that their life is not worth continuing.

The first three worries about unending life—boredom, ennui and meaninglessness—could all contribute to a scenario where someone felt some significant number of their core preferences were not being and could not be met. Any of those three problems at their most

severe would undermine any prospect of happiness, as they did for E.M.. And any of them could be considered not only obstacles to happiness, but unpleasant states in their own right. A life of ennui is one we could imagine many people would prefer to end.

Similarly, all three of these worries could bring about the second scenario, in which someone loses all goals that propel them into the future. It would be hard to maintain positive goals if all activity seems boring; all the more so for someone plagued with ennui. Most of all, a state of being in which all activity seems meaningless is exactly that state in which all positive goals have become impossible. The four problems we have considered therefore do seem serious enough to ground a decision that it would be better not to go on living.

If someone is considering whether they should choose to live forever from a prudential viewpoint, they would therefore want to know how likely they would be to encounter these problems. I have tried to argue above that if we are really considering someone living *forever*—that is, the case of the true immortal who cannot die—then it is inevitable that they will encounter these problems. But even if you are not convinced by *all* of the arguments above, then it is worth considering that *any* of boredom, ennui, and meaninglessness (for eternity) would likely be bad enough for death to be preferable. Similarly, if you are not completely convinced by any of the arguments above that these problems are *inevitable*, then I suggest that there is at least a *very good chance* that each of them will come to pass. I therefore conclude that, from a prudential point of view, no one should choose to live literally forever. Admittedly, this is not a choice open to ordinary humans here on earth. But if you meet a genie who offers to transform you into an immortal spirit, I recommend that you politely decline.

At the other end of the ‘forever’ spectrum is moderate life extension to between 120–160 years. I argued above that the problems of boredom, ennui, meaninglessness and procrastination would likely apply to a person with this lifespan only a little more than they do to ordinary people today. Some people in this range might become bored and goalless; some, on the other hand, would likely flourish, and consider dying at the age of 160 to be far too early. I suggest, therefore, that from a prudential point of view, these arguments do not speak strongly against the kind of moderate life extension that anti-ageing researchers are pursuing today.

The difficult cases are the two in between: radical life extension and contingent immortality. The latter is highly speculative, if not wholly

fantastical: it assumes that a person could genuinely live forever, yet also choose to end it all. We noted above that an immortal with a get-out clause might worry less about boredom or meaninglessness. Though we also saw that they would likely be beset by the problem of procrastination, and could easily become stuck in an endless rut.

The question of whether it would be rational to pursue ‘living forever’ in the form of radical life extension is perhaps the most interesting. This is partly because it is potentially a this-worldly decision. It is highly speculative that humans will have the option of an elixir that could defeat ageing and all disease. But it does not seem impossible, and many people with large amounts of resources are pursuing it. Unlike the more mystical scenarios, radical life extension is a goal whose achievability could be affected by policy decisions made today (about research spending, for example, or tax incentives). But is it, on balance, something an individual should want for themselves, considering their interests?

It is very hard to say how probable it is that someone with an elixir of radical life extension would experience boredom, ennui, and meaninglessness, given the great uncertainty about how long their lives would be, and the general uncertainty about when these three problems might set in for different people with different personalities and dispositions. In a society with a high risk of war and other catastrophe, it might well be rational to take such an elixir, which cures a person of ageing and disease, in the expectation that one will anyway be dead by other causes well before one’s thousandth birthday. Equally, it is easy to imagine circumstances in which it would not seem rational to take such an elixir: for example, where millennia-long lives are secured only by extreme risk-aversion, and people are kept in highly safe surrounds (nuclear bunkers, say, deep under mountains) that all but guarantee boredom and meaninglessness.

Of course, scenarios of radical life extension are far from ‘living forever’ on any literal interpretation of that term. It is therefore perhaps not surprising that arguments for why living forever would be bad do not necessarily apply to these scenarios. But I have argued that they *could* apply: the radically life-extended person could experience the procrastination problem, or any of boredom, ennui, and meaninglessness. I suggest therefore that whether it would be prudent to pursue this course will depend very much on the particular circumstances, and anyone offered such an elixir would do well to read the small print.

In this part of the book, we first noted that deciding whether we should want to live forever would bring us into the realm of speculation, as there are no (reliable!) firsthand reports of immortal lives. We then resolved to focus on two speculations in particular, both often discussed by philosophers: Karel Čapek's 1919 play *The Makropulos Secret*, and Jorge Luis Borges's 1947 short story 'The Immortal'.

We used these texts to explore four problems with immortal lives:

- **Boredom:** there are a limited number of pleasurable activities that a person can engage in, and all of them will become boring if repeated often enough. Therefore if a person lives long enough, they will eventually engage in all pleasurable activities to the point that they become boring.
- **Ennui:** even before every possible pleasure has become boring, the repetition involved in an endless life will lead to staleness and depression; a sense that life has been drained of its colours.
- **Meaninglessness:** if a person lives long enough, they will eventually do an immense variety of things, including things that contradict, counteract, or repeat other things they have done. As a consequence, individual projects will lose their significance; each immortal will cease to have a distinct identity; and categories of good and bad would cease to have meaning.
- **Procrastination:** many of the decisions we make require us to weigh the value of our time. But for an immortal, time is infinite, and therefore has no value. This makes it impossible to make rational decisions about how to spend one's time and would lead to a range of traps, contradictions and ruts.

We saw that people in our four different categories of living forever will experience these problems to very different degrees. At one end, people in scenarios of moderate life extension would hardly experience them more than people do today. These problems are therefore not arguments against trying to progressively increase human lifespans in the way that has happened in the past two centuries. At the other end of the spectrum, true immortals, who

cannot cease to exist, would encounter these problems to a very serious degree—to the extent that we might consider true immortality to be a curse.

We saw that someone who was contingently immortal would be likely to encounter these problems. But they have a get-out clause—they could choose to give up their immortality—and this could change the balance of whether it would be prudentially rational to pursue this option (although we will discuss this more in Chapter 3). Finally, we saw that someone whose life had been radically extended would face a difficult choice, as their likelihood of encountering any of the four problems would depend very much on their particular circumstances: their personality, their society, and how history unfolded around them.

## 4 Ethics: Would It be Right for Society for People to Live Forever?

In the previous part of this chapter, we looked at the prudential criterion—whether living forever would be the right choice for someone considering only their own interests. In this part, we will zoom out to look at the interests of society as a whole. This is the other important meaning of 'should' or 'should not': whether it is the moral or just choice—what we are calling the ethical criterion.

We will look at two main worries: that people living forever (or significantly longer) would lead to catastrophic overpopulation, and that people living forever (or significantly longer) would exacerbate social injustices.

### 4.1 Overpopulation

Overpopulation is often the first worry that springs to people's minds when they consider what would happen if we could live forever. As a rule, this is a worry that relates to living forever on this planet (or at least in this physical universe), not in some other-worldly realm. The thought is a simple one: if humans continue to be born, but cease to die, then the population will keep growing until at some point the planet is too full. However,