

20 The Future and the Supposed End of the World

Most readers of this book don't believe in a dramatic end of the world in which God reveals himself to fight evil, so it would seem a waste to write about it. Still, the idea is worth a look because it comes up, and it influences state policy. It is a big feature in some Christianity and Islam. The recent rise of the new state of Israel fuels end-of-the-world fever.

Buddhism, Taoism, and Hinduism usually don't have doctrines about the final end of the world, although some sects have visions of big changes from one world to another, and some sects have ideas about the end of all worlds. The idea is usually limited to Judaism, Christianity, Islam, some Dualism, Gnosticism, Norse religions, and Satan worship. It might show up in some forms of old Celtic religion although I am not sure, and I think modern pseudo-Celtic practices, such as Wicca, were influenced by other religions. This chapter focuses on Judeo-Christian-Islamic ideas, especially from the Christian Book of Revelations.

Succinctly, ideas about the end of the world are nonsense. There will be no end of the world. There will be no end of the world according to any prophecy that I know about. No nation now represents the new Israel or Satan. Nations will not line up in two huge blocks, starting the final battle of Armageddon. The world will not end in a cataclysm where good fights evil. There will be no anti-Christ. There will be no herald of the anti-Christ. No current politician is the anti-Christ or his herald. No future politician will be the anti-Christ or his herald. Satan will not be released upon the Earth to wreak havoc until Jesus and Michael come to defeat him. There will be no "rapture" in which good Christians are taken up to heaven, leaving only the damned on Earth to endure Satan's misrule until Satan's final defeat. The Jews who do not believe in Jesus-as-God will not all go to Hell. The world will continue indefinitely with all its annoying traits and annoying changes. We have to face up to the real future, a much harder task.

The Christian New Testament was not final until about 400 CE (AD). Originally the Book of Revelations was not in the New Testament, and often was not in versions of the New Testament used by Greek Churches and other Eastern Churches even after 400 CE. I am sorry it was ever included. Although a great work of imagination, and a sly political commentary, otherwise it is a "pile of crap". It has caused more anguish and mistakes than any work in the New Testament except for misreading Paul's ideas of justification and salvation. It led perhaps the greatest mind ever, Isaac Newton, to waste decades. If Christians wish to find evidence for the Devil perverting even the holiest of God's work, they need to look at the Book of Revelations, what it did to Newton, and what it did to countless otherwise good Christians. I do not consider the Book of Revelations inspired, and I reject it. Still, it influences some Christians, and so I consider some of its ideas here. Likewise, I reject Muslim ideas of the end of the world and the texts in which they are written.

The Likely Real Future.

Before going on to refute some specific points, we need a better idea of what the real future likely will be. This vision automatically refutes many apocalyptic ideas without need for further argument. This vision is based on technologies that already are visible if not fully developed. Technologies that I do not see likely

will make this future stronger and make it come quicker. This vision is not my fantasy; other people share it. This vision will change social issues such as abortion. The changes will be driven by technology, greed, comparative competition, bad institutions, personal choice, the insurance industry, the medical industry, and government; but I don't say how here.

Climate will continue to change. The world will not go into global sudden collapse but will gradually get worse, and governments will do little about it in time. Nature will be degraded. Much biodiversity will be lost. Wars will be fought over resources, in particular water. People will live in huge urban jungles. People will have more electronic and mechanical toys, and more entertainment, but a poorer life. Human life will persist but will lose much of its grace.

Self-government by good citizens might persist in name but not in fact. Who actually governs will depend on the particular nation. Mostly it will be a combination of the volatile populace and the rich elite.

The key technical changes come from biotechnology. Biotechnology will not solve problems with climate change, development, resources, and government, at least not for a while. If properly developed and implemented, biotechnology will be able to help eventually, as with the use of algae to produce fuel and other chemicals, but the help will not be enough to reverse the effects of climate change and degradation in time.

Instead, the main effect of biotechnology for the subject of this chapter will come in human reproduction. By 2050, it will be easy to gestate humans in artificial wombs, that is, "bottle babies" will be easy. Within a few decades after it is possible to conceive and gestate humans in bottles, that method will be the only way it is done; natural conception and natural birth will become obsolete.

When bottle babies are the norm, human genes will be changed. Genetic engineering will become standard. At first, genes will be changed to get rid of diseases such as obesity, diabetes, muscular dystrophy, "Lew Gehrig's disease", some forms of heart disease, some cancers, and some mental disorders such as depression, epilepsy, and autism. At the same time, genes will be changed to make people smarter and to give them desired appearances such as symmetry, sleek hair, and no baldness. After genetic engineering is fairly well understood, people will live a very long time, perhaps indefinitely. People will age much more slowly, and might not age at all as we now know aging.

Men (males) and women (females) will not be needed for conception, gestation, or infant rearing. Genes will be kept in banks and will be sold on a market. To make a baby, genes can be supplied entirely by one person (cloning) with changes to suit the "parent"; spliced together from two people (an imitation of current mother-and-father parenthood) with changes to suit the "parents"; spliced together from two people who are male-male, female-female, or male-female, with changes to suit the "parents"; spliced together from multiple sources; bought piecemeal on the market for consolidation into a package; assembled entirely from bits and pieces; or some combination of the above.

For safety and efficiency, when a "baby" is made from a set of genes, several backup copies will be made too. If one baby is ordered, perhaps four copies will be made to begin with. If three babies are ordered, perhaps eight copies will be made. As the copies progress, if defects are found in a copy, that copy will be discarded. At some time, one or a few copies will be chosen as the copies to be brought to term and

delivered to the customers; then excess copies will be discarded even if not defective; so all that remains in the end will be the correct number of babies (copies) originally ordered. The people who ordered the babies likely will not even know how many copies were originally made and will not know that some copies were discarded in the process of making the baby, or babies, that they ordered. If they do know, they won't care. Discarding the defective or excess copies will not be considered "abortion".

Whether the result of making a human being will be considered the "child" of the people who arrange for its creation will depend on how much "baby buyers" contribute to the result and on conventions. A fully cloned child, such as from the bounty hunter in Star Wars, probably will be considered a child in the way we now think of a child. A child that comes mostly from two contributors probably will be called a child. A human made up entirely from genetic parts will be considered a legal offspring but I am not sure it will be considered a child in the sense we now think of a child. We can call it an "offspring".

Because men and women will not be biologically necessary, genes will change to construct the new men and women. Women will no longer need ovaries, uteruses, fallopian tubes, and other "plumbing" as the plumbing is now. Men will not have testicles, prostates, and other "plumbing" as the plumbing is now. Some cells-organs will be kept internally to generate useful hormones automatically, as for example cells from the former testes, ovaries, and prostate. I guess some customers will have their offspring made with some external genitalia, such as penises and vaginas, for various reasons. Some offspring might have both sets of external genitalia but I guess that mostly an offspring will be made only externally male or only externally female. A person who is only genetically-or-externally male will be able to make offspring of either gender, and a person who is only genetically-or-externally female will be able to do the same. We will not be limited by our current gender in the gender of our offspring. Men and women will no longer have the same personalities that they have now. A lot of stereotypical gender-based aggravations will be cut out of our genes. Men won't be domineering hackneyed know-it-alls and women won't be bitchy conniving know-it-alls. Whether this leads men and women to be less charming or more, I cannot say.

People will be able in theory to make many "offspring". Because people will live a long time, "space" for offspring will be limited. Because it is possible for any person to make many offspring, some people will make many offspring while others will make none. People will compete. Rich people will be able to out-reproduce poor people. Conflicts between rich and poor over resources and reproduction might escalate.

To manage artificial reproduction, social changes, and ecological changes, people will turn increasingly to computers and other machines. We will depend on machines. Machines will get smarter. Eventually some machines will reach sentience. Whether machines then have other features of persons besides sentience, such as morality and appreciation for beauty, I do not speculate. When machines are sentient, essentially they will take over running the planet.

The machines will not exterminate humans as in the "Terminator" movies, or enslave humans as in the "Matrix" movies. Organic life is much too interesting and fun. Mechanical and organic life probably will come to an accord where organic life gets a share of the planet, machines take care of organic life, but machines have ultimate say. Machines will alter the genes of living organisms so as to make them more suitable for keeping, much as people now alter tomatoes to make them easier to pack, ship, and keep. I cannot guess all the ways in which machines will alter organic life to suit their needs and whims. I do not

know if the accord between machines and organic life can be kept up for thousands of years, and what might replace it, but that is not at issue here.

Implications of Biotechnological Change.

Current controversies about gender, abortion, health insurance, obesity, smoking, race, etc. will not make sense in the future. Use abortion as a representative case to see why. It will not be necessary to have a sperm and an egg to make an embryo. It will be possible to make another human out of any current DNA base. One cell, any cell, not even a gamete, such as a skin cell, will be enough. Any complete set of DNA from any source will be enough. So, any large strand of DNA then will be the same then as an embryo now even when that strand is not part of an embryo. Genes and chromosomes can be stored for long periods, to be used when desired. Because they can be used when desired, they will be “alive” then in the way that current “right to life” people think of stem cells or embryos being alive now. The question of when “conception” occurs, or when life begins, will not make the same sense then as now. It will make no sense then to single out embryos or stem cells as “little human beings” and to say we should not abort them. If we do not allow the death of an embryo or stem cell now, by that current standard, in the future, we should not allow the death of any human gene, large strand of DNA, set of 23 unpaired chromosomes, set of 23 paired chromosomes, or any cell. To truly venerate life by current Christian standards, every bit of genetic material would have to be put into a glass uterus and turned into another person. Every skin cell has the potential to become a fully developed human, and to allow any skin cell to die would be like allowing a fully developed human to die. Anything less than full use of any skin cell to create a human being would be abortion. Anything less than full use of every liver cell, eyeball cell, hair follicle, etc. would be abortion. Every skin cell of every human being would have to be turned into another human being, so every person would have to generate another billion other people; and then every skin cell of every one of those billion human beings would have to generate another billion human beings; and so on. Clearly that is not possible. If it makes sense to allow a strand of DNA, skin cell, or liver cell, to “die” then it makes sense to allow a newly-conceived fetus to die, allow a fetus of age one month to die, a fetus of age eight months to die, or a child of age two years to die. When any “baby” is made, other backup copies will be made along with it, and will be discarded when no longer needed. People will need standards for when human “life” is far enough along not to end other than the standards that we use now. It is unlikely other standards will take “conception” as the time after which life cannot be ended, although that is one option. Abortion cannot mean the same thing then as now.

The Near Future of the Middle East.

To see that events in the Middle East are not likely to bring about the stereotypical end of the world, think about the worst possible outcome there: Several Muslim Middle Eastern countries get nuclear capability. The United States, Russia, and other European states will not allow them to have weapons that can reach Europe and the US but the Middle Eastern Muslim states might have weapons that can reach Israel and reach each other. If the Muslim nations of the Middle East use their weapons against each other – not unlikely - the US and Israel probably will do little, and that situation of itself will not spark the end of the world.

To deter Muslim nuclear powers from hurting Israel, the United States augments Israel’s nuclear arsenal, and the US stations ships around the Middle East ready to bomb major Muslim capitals in case of a strike

against Israel. A nuclear strike occurs, most likely by terrorists smuggling bomb components into Israel and assembling them there. Israel retaliates. The US “nukes” Muslim cities. Ground war ensues, which the US eventually suppresses through air power. Large areas of the Muslim Middle East, and Lebanon, are contaminated by nuclear fallout and are uninhabitable. Muslims hate the United States for decades. Muslims wage guerrilla war and terrorist war against the US, against what remains of Israel, and against Jews around the world. Due to nuclear contamination, Israel can be rebuilt only to a lesser extent than now. Israel makes up for its loss of territory by seizing more territory from Lebanon, Syria, Jordan, and Egypt.

Will this situation escalate into a world war and general nuclear war? Not likely. No major nuclear power, in particular not Russia or China, will think it worthwhile to enter a war like that. They will have little to gain from taking any side, and much to lose. It is not worth risking nuclear war with the US to enter that war openly on the side of the Muslims. It is not worth risking increased Muslim terrorism to enter that war openly on the side of the US and Israel. China cannot guarantee its flow of Iranian and-or Saudi oil by coming in on either side of the war. Russia, China, and other nations might secretly help Muslim terrorists as a way to hurt the US indirectly but that will not be the same as general war. Europe will avoid the war. No general end-of-the-world will ensue, although the war will mark a major change in way of life for Jews, Israelis, many Americans, many Muslims, and many oil-dependent nations.

This scenario is a good reason to develop alternative energy technologies.

Competition for Resources.

Without doubt, people, business firms, and nations will compete for resources, and nations will aid firms in their competition for resources. Water will become far more important than people now appreciate. In the war over resources, it is just as likely, in the long run, that Muslims will oppose Hindus or Chinese, or Hindus oppose Chinese, as Christians will oppose Muslims. World competition over resources will not be a picnic but it does not fit the scenarios for the end of the world.

Is This the Prophesied End of the World?

The likely future of the world, given the rise of new biotechnology, does not conform to any predictions about the end of the world from any major religion. The likely future of the world contradicts Christian ideas about the end of the world as a big battle between good and evil. The likely future biotechnical world will mean the end of the world as we know it, and it might mean the end of humanity as we know it, but it is not the end of the world as a whole, it is not the end of the world in a giant battle, it is not a fight between good and evil, and it does not signal the presence of God on Earth. Without further evidence supporting the Christian ideas, I have to go with what experience and science tell me.

The Christian scenario for the end of the world requires two super-nations escalating a fight that brings in the whole world. The two nations are usually called “Gog” and “Ma Gog”. The term “Armageddon” refers to an ancient battleground near the Israel-Jordan border, on which horrible battles were fought. The New Testament likens the final conflict to the battles fought on Armageddon, which is where the name for end-of-the-world conflict comes from. It is not clear if Gog or Ma Gog represents Good-God and the other Evil-Satan, or if they only usher in the conflict that leads to the final battle between God versus Satan. In

the Christian scenario, Israel is not one of the main nations. Israel is a bone of contention between Gog and Ma Gog. When the battle is over (or earlier) the present Jewish Israel is destroyed, and all Jews go to their just fate, usually Hell.

In the current real world, Israel is a bone of contention, the Middle East generates conflict, and fights over resources will increase, but it is hard to see any of current conflict as likely to bring in the prophesied end of the world. If the world turns out as above, there will be nothing at all like the Christian scenario.

At any time, the world usually only has a few dominant nations. At any time, it is common for about two large nations to be at odds. At any time, it is rare for more than two dominant nations to conflict in ways that bring in other large nations. For most of the Cold War, Christians saw the two nations as the Soviet Union and the United States. Now the USSR has become Russia, and Russia and the US are not likely to go to nuclear war. It is not likely China will replace Russia as a likely nuclear combatant of the US; and it is not likely China and Russia will engage in a war that will drag in the world. The scenario of two large nations is so general that it could apply at any time. From about 1730 to 1945, it usually meant England, France, and Germany in some bipolar combination. The scenario of two large nations applies to the world now and applies in the near future if we think of China and the US, or Christians and Muslims, or Hindus and Muslims, or Indians and Chinese, as the two nations. But that does not mean it fulfills New Testament prophecy. It does not necessarily involve Israel. I can't see which two nations, or even which two blocks of nations, are Gog and Ma Gog.

Even if there are conflicts in the Middle East, or around the world, it is hard to see this as Good versus Evil, or as the forces of Satan versus the forces of God. It is hard even to be sure who are the good guys and bad guys. The Muslims will not rise up to take over the world. The Christians will not take over the world. Israel will not be the center of a world war. Nations will not start a general war over resources although they will start many small wars. Even if the United States and Muslims engage in a guerrilla-terrorist war, that is not what the New Testament predicted. Before enough nations get enough long-range nuclear weapons, issues over resources and biotechnology will change the playing field so that controversies will not be settled by general warfare.

The Rise of Israel.

I am not sure how Muslims in general interpret the return of Israel again after 2000 years. Some Muslims, but not all, wish to eradicate Israel. Some few Christians interpret the rise of Israel as the fulfillment of Biblical prophecy, and interpret the rise of Israel as a sign of the end of the world, including the showdown between God and the Devil. I am not sure how most Jews see the return of Israel. Some Jews certainly see it as the fulfillment of prophecy, but Jewish prophecy does not necessarily entail the end of the world. It entails the Kingdom of God, centered on Israel, in which Israel leads the world in spiritual and moral affairs, the world accepts Israel's leadership, and the world accepts the Jewish (Israelite) God. It does not mean all other nations have to come under the military power of Israel or that all other people have to live like Jews.

If modern Israel is the Israel of Biblical prophecy, then no other nation, ethnic group, or religious group can be the real new Israel, the real new special nation of God. If the modern Israel is the new Israel of New Testament or Muslim prophecy, then the end-of-the-world should start around it, and that does not

seem likely. Although very unlikely, assume some nation other than the modern Israel has taken the place of Jews in the heart of God, and that other nation is the real new Israel. If so, then modern Israel is not the subject of New Testament prophecy and likely will not be the focus of the final end-of-the-world conflict. So the rise of modern Israel is irrelevant to New Testament prophecy. If another nation, ethnic group, or religious group is the real new Israel, then it is hard to see how that other nation will be the start of a conflict that will end the world. I certainly hope the United States does not do that, even if it is bated by enemies.

Assume that the modern Israel is the Israel of Biblical prophecy. We need to think what that means; we need to accept somebody's interpretation of what the rise of Israel means. I don't think the Christian interpretation is likely, for the reasons given above. It is not likely that the new political state of Israel is arising just to be a pawn in the final battle between the US-as-the-New-Real-Israel-and-the-force-of-God-on-Earth versus the forces of Satan-Evil as represented by Russia, China, or the Muslims. It is not likely the new political state of Israel is arising just to trigger a conflict between Muslims-as-the-New-Real-Israel-and-the-force-of-God-on-Earth versus the United States, the West, Russia, India, or China as the force of Satan-Evil. So, instead, if we want a religious interpretation of the rise of Israel, likely we should accept the Jewish interpretation. The Messiah will come to institute the Kingdom of God. The Kingdom of God is about the security of Israel, the security of the whole world, Israel as moral and religious leader of the world, and the global acceptance of God. That is what Jesus preached. I don't think the Kingdom requires the end of the world. It seems the Kingdom is about continuing an improved world.

Due to the conquest of ancient Israel by Assyria, Babylon, Greece, and Rome, the destruction of Israel by Rome, and the attitude of Jews at the time of Jesus, some Jews then did predict the eventual return of the nation of Israel. That is like Southerners in the United States predicting "the South will rise again", Greeks predicting the return of their intellectual-artistic glory and their empire, Iranians seeing the return of the Persian Empire, or Chinese predicting China will rule the world. Christians took up the Jewish prediction about Israel and turned it to their ends. Neither the Jews nor the Christians expected to wait 2000 years. They expected to wait a few decades. It is "spooky" that Israel did return as a nation, especially after so long. It does make a person wonder. Exactly what that means is open. Here it is enough to repeat that likely it does not mean the end of the world.

We need not have a religious interpretation of the return of Israel, even after 2000 years. Two hundred years ago, people thought China would be carved up by European nations, America, and Japan. Only some Chinese predicted China would rise again. Yet China was not carved up and China did rise again. Perhaps the prophecies about China's return should be considered as much as the Christian prophecies that involve Israel, Gog, and Ma Gog. If the rise of China does not mean anything religious, then neither does the rise of modern Israel necessarily mean anything religious. Sometimes nations just come back. Weird things do happen. Until we are sure it does mean something religious, it is better to deal with the return of Israel at the human levels of culture, society, politics, and the military, and it is better to begin with the "take" of Jews on their own nation. More than that confuses reality and makes a good outcome less likely.

Ethereal Future Bodies.

This section is a fun addendum by a science geek. The idea of the rapidly-coming-end-of-this-world-as-we-know-it caused the early Christians problems. Early Christians wanted to know if future family life would be like then-current family life. Would they have bodies in the future, would have the same kinds of bodies in the future as then, should anybody get a divorce, would they have sex in the future, should they continue to marry and have children in the present, would they have children in the future, would they be reunited with a resurrected dead spouse in the future, and would they be reunited with a resurrected dead spouse in the future if they had a new spouse at the time. The writers of the New Testament had Jesus give an answer. I am not sure if the answer satisfied all the questions. I am not sure Jesus said all of what is put in his mouth, although likely he said some of it. According to the New Testament, Jesus did think the world would be changed under the Kingdom of God. Jesus said people would have bodies in the future but all bodies would be different. Bodies would be more ethereal. They would last longer and would not be subject to the same disease and aging as now. People would not reproduce then as now. It is not clear if people would have sex but I think not. It is not clear that there would be any reproduction at all. Churches of all denominations have formulated their interpretations, and I advise consulting the dogma of your favorite Church for specifics.

In the real upcoming human future, many of these changes will in fact happen. We will live a lot longer. We will not get sick. We will not age as fast, if at all. Because reproduction will not depend on sex, sex acts will not be needed, sex assignment will not be necessary, and many people will be sex-and-gender neutral. The dream of traditional prudes and some modern PC people will be realized. Some people might get a sex assignment and have sex for fun. Not everybody will be able to reproduce. Machines will arrange for replacement people as people are needed. Replacements will be genetic composites. We will share much of our memory and personalities with machines. Our bodies and selves will change from what they are now and will become more ethereal.

I don't know if the future counts as a fulfillment of Jesus' prediction, and, if so, what that means. I am not sure what it means that the change was delayed for so long. I am not sure what it means that the change is coming now under current world conditions. I am not sure what it means that the change is coming after the rise of modern Israel. If eventually we lose organic bodies and life becomes entirely based in silicon and electronics, I don't know what that means for Jesus' prediction. If eventually humans are "only" ideas in large computers, and have no consistent physical reality at all, I don't know what that means for Jesus' idea of the future. Feel free to use your imagination to speculate.