I liked the author's first book but I didn't like this one. I read a little from it. Writing *history of future* is *a bit* more difficult than writing the history of past and beginning your book on the premise that *death will be overcome* is not a good first step either.

Because if it's correct, than you lose almost all basis for human society, psychology and traditions and you cannot make a further plausible guess, it's more difficult to imagine a society where death doesn't happen, than a society with sentient robots.

If death is not, then what is? What can shape *Homo Deus* without death?

And if it's not correct, the book loses its appeal.

Also I noticed there is too much reduction in the book. When you look at closely, you can *reduce* any complex idea to another complex idea but this doesn't mean, e.g. humans are algorithms or God is a representation of universal political power, etc.

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page 17

In 2012 about 56 million people died throughout the world; 620,000 of them died due to human violence (war killed 120,000 people, and crime killed another 500,000). In contrast, 800,000 committed suicide, and 1.5 million died of diabetes. Sugar is now more dangerous than gunpowder.

page 17

Previously the main sources of wealth were material assets such as gold mines, wheat fields and oil wells. Today the main source of wealth is knowledge. And whereas you can conquer oil fields through war, you cannot acquire knowledge that way. Hence as knowledge became the most important economic resource, the profitability of war declined and wars became increasingly restricted to those parts of the world – such as the Middle East and Central Africa – where the economies are still old-fashioned material-based economies.

page 18

Previous generations thought about peace as the temporary absence of war. Today we think about peace as the implausibility of war.

page 18

Of course, there are a few places where defence ministers still say such things, and there are regions where the New Peace has failed to take root. I know this very well because I live in one of these regions. But these are exceptions.

page 20

However, terrorism is a strategy of weakness adopted by those who lack access to real power.

page 20

Consequently states often feel obliged to react to the theatre of terrorism with a show of security, orchestrating immense displays of force, such as the persecution of entire populations or the invasion of foreign countries. In most cases, this overreaction to terrorism poses a far greater threat to our security than the terrorists themselves.

page 20

The fly is so weak that it cannot budge even a single teacup. So it finds a bull, gets inside its ear and starts buzzing. The bull goes wild with fear and anger, and destroys the china shop.

page 23

Because Christianity, Islam and Hinduism insisted that the meaning of our existence depended on our fate in the afterlife, they viewed death as a vital and positive part of the world. Humans died because God decreed it, and their moment of death was a sacred metaphysical experience exploding with meaning.

page 27

Some experts believe that humans will overcome death by 2200, others say 2100. Kurzweil and de Grey are even more sanguine. They maintain that anyone possessing a healthy body and a healthy bank account in 2050 will have a serious shot at immortality by cheating death a decade at a time.

page 28

Now try to imagine a person with a lifespan of 150 years. Getting married at forty, she still has 110 years to go. Will it be realistic to expect her marriage to last 110 years?

page 32

All the wars and conflicts of history might turn out to be but a pale prelude for the real struggle ahead of us: the struggle for eternal youth.

page 33

When Otto von Bismarck pioneered state pensions and social security in late nineteenth-century Germany, his chief aim was to ensure the loyalty of the citizens rather than to increase their well-being. You fought for your country when you were eighteen, and paid your taxes when you were forty, because you counted on the state to take care of you when you were seventy.

page 35

When Epicurus defined happiness as the supreme good, he warned his disciples that it is hard work to be happy. Material achievements alone will not satisfy us for long. Indeed, the blind pursuit of money, fame and pleasure will only make us miserable. Epicurus recommended, for example, to eat and drink in moderation, and to curb one's sexual appetites. In the long run, a deep friendship will make us more content than a frenzied orgy.

page 35

In Peru, Guatemala, the Philippines and Albania – developing countries suffering from poverty and political instability – about one person in 100,000 commits suicide each year. In rich and peaceful countries such as Switzerland, France, Japan and New Zealand, twenty-five people per 100,000 take their own lives annually.

page 37

We don't become satisfied by leading a peaceful and prosperous existence. Rather, we become satisfied when reality matches our expectations. The bad news is that as conditions improve, expectations balloon.

page 38

Anyone who tries to deduce good and evil from something else (such as the word of God, or the national interest) is fooling you, and perhaps fooling himself too.

page 38

Nobody suffers because she lost her job, because she got divorced or because the government went to war. The only thing that makes people miserable is unpleasant sensations in their own bodies.

page 40

Some may say that this is not so bad, because it isn't the goal that makes us happy – it's the journey. Climbing Mount Everest is more satisfying than standing at the top; flirting and foreplay are more exciting than having an orgasm; and conducting groundbreaking lab experiments is more interesting than receiving praise and prizes.

page 43

What some people hope to get by studying, working or raising a family, others try to obtain far more easily through the right dosage of molecules. This is an existential threat to the social and economic order, which is why countries wage a stubborn,

page 43

What some people hope to get by studying, working or raising a family, others try to obtain far more easily through the right dosage of molecules. This is an existential threat to the social and economic order, which is why countries wage a stubborn, bloody and hopeless war on biochemical crime.

page 44

If I identify happiness with fleeting pleasant sensations, and crave to experience more and more of them, I have no choice but to pursue them constantly. When I finally get them, they quickly disappear, and because the mere memory of past pleasures will not satisfy me, I have to start all over again. Even if I continue this pursuit for decades, it will never bring me any lasting achievement; on the contrary, the more I crave these pleasant sensations, the more stressed and dissatisfied I will become.

page 47

Monkeys have recently learned to control bionic hands and feet disconnected from their bodies, through electrodes implanted in their brains. Paralysed patients are able to move bionic limbs or operate computers by the power of thought alone.

page 51

In ancient agricultural societies, many religions displayed surprisingly little interest in metaphysical questions and the afterlife. Instead, they focused on the very mundane issue of increasing agricultural output. Thus the Old Testament God never promises any rewards or punishments after death.

page 55

If growth ever stops, the economy won't settle down to some cosy equilibrium; it will fall to pieces. That's why capitalism encourages us to seek immortality, happiness and divinity.

page 58

Suppose a genetic test indicates that your would-be daughter will in all likelihood be smart, beautiful and kind – but will suffer from chronic depression. Wouldn't you want to save her from years of misery by a quick and painless intervention in the test tube? [My Note: There might not be a singe gene related to this. The problem of genes vs characters may be irreducible]

page 61

Marx forgot that capitalists know how to read. At first only a handful of disciples took Marx seriously and read his writings. But as these socialist firebrands gained adherents and power, the capitalists became alarmed. They too perused Das Kapital, adopting many of the tools and insights of Marxist analysis. In the twentieth century everybody from street urchins to presidents embraced a Marxist approach to economics and history. Even diehard capitalists who vehemently resisted the Marxist prognosis still made use of the Marxist diagnosis. When the CIA analysed the situation in Vietnam or Chile in the 1960s, it divided society into classes. When Nixon or Thatcher looked at the globe, they asked themselves who controls the vital means of production.

page 62

This is the paradox of historical knowledge. Knowledge that does not change behaviour is useless. But knowledge that changes behaviour quickly loses its relevance. The more data we have and the better we understand history, the faster history alters its course, and the faster our knowledge becomes outdated.

page 64

The idea of nurturing a lawn at the entrance to private residences and public buildings was born in the castles of French and English aristocrats in the late Middle Ages. In the early modern age this habit struck deep roots, and became the trademark of nobility. Well-kept lawns demanded land and a lot of work, particularly in the days before lawnmowers and automatic water sprinklers. In exchange, they produce nothing of value. You can't even graze animals on them, because they would eat and trample the grass. Poor peasants could not afford wasting precious land or time on lawns. The neat turf at the entrance to chateaux was accordingly a status symbol nobody could fake.

page 67

Qatar's newly built Museum of Islamic Art is flanked by magnificent lawns that hark back to Louis XIV's Versailles much more than to Haroun al-Rashid's Baghdad. They were designed and constructed by an American company, and their more than 100,000 square yards of grass – in the midst of the Arabian desert – require a stupendous amount of fresh water each day to stay green.

page 67

This is the best reason to learn history: not in order to predict the future, but to free yourself of the past and imagine alternative destinies.

page 68

While the attempt to upgrade humans into gods takes humanism to its logical conclusion, it simultaneously exposes humanism's inherent flaws. If you start with a flawed ideal, you often appreciate its defects only when the ideal is close to realisation.

page 72

Altogether about 200,000 wild wolves still roam the earth, but there are more than 400 million domesticated dogs.1 The world contains 40,000 lions compared to 600 million house cats; 900,000 African buffalo versus 1.5 billion domesticated cows; 50 million penguins and 20 billion chickens.

page 73

Yes, a big asteroid will probably hit our planet sometime in the next 100 million years, but it is very unlikely to happen next Tuesday. Instead of fearing asteroids, we should fear ourselves.

page 77

In the Garden of Eden, Adam and Eve lived as foragers. The expulsion from Eden bears a striking resemblance to the Agricultural Revolution.

page 77

What lessons does the Bible draw from the episode? That you shouldn't listen to snakes, and it is generally best to avoid talking with animals and plants. It leads to nothing but disaster.

page 77

In most Semitic languages, "Eve" means "snake" or even "female snake". The name of our ancestral biblical mother hides an archaic animist myth, according to which snakes are not our enemies, but our ancestors. Many animist cultures believe that humans descended from animals, including from snakes and other reptiles. Most Australian Aborigines believed that the Rainbow Serpent created the world.

page 78

Genesis says that, instead of descending from snakes, humans were divinely created from inanimate matter. The snake is not our progenitor: he seduces us to rebel against our heavenly Father. While animists saw humans as just another kind of animal, the Bible argues that humans are a unique creation, and any attempt to acknowledge the animal within us denies God's power and authority. Indeed, when modern humans discovered that they actually evolved from reptiles, they rebelled against God and stopped listening to Him – or even believing in His existence.

page 85

Over the last few decades biologists have reached the firm conclusion that the man pressing the buttons and drinking the tea is also an algorithm. A much more complicated algorithm than the vending machine, no doubt, but still an algorithm. Humans are algorithms that produce not cups of tea, but copies of themselves (like a vending machine which, if you press the right combination of buttons, produces another vending machine).

page 86

What we call sensations and emotions are in fact algorithms. The baboon feels hunger, he feels fear and trembling at the sight of the lion, and he feels his mouth watering at the sight of the bananas.

page 87

Within a few milliseconds the algorithms convert tiny cues in the male's external appearance into reproduction probabilities, and reach the conclusion: "In all likelihood, this is a very healthy and fertile male, with excellent genes. If I mate with him, my offspring are also likely to enjoy good health and excellent genes." Of course, this conclusion is not spelled out in words or numbers, but in the fiery itch of sexual attraction. Peahens, and most women, don't make such calculations with pen and paper. They just feel them.

page 88

Mammal youngsters, on their side, feel an overwhelming desire to bond with their mothers and stay near them. In the wild, piglets, calves and puppies that fail to bond with their mothers rarely survive for long. Until recently that was true of human children too.

page 89

John Watson, a leading childcare authority in the 1920s, sternly advised parents, "Never hug and kiss [your children], never let them sit in your lap. If you must, kiss them once on the forehead when they say goodnight. Shake hands with them in the morning."

page 90

They knew they were exploiting domesticated animals and subjugating them to human desires and whims. They justified their actions in the name of new theist religions, which mushroomed and spread in the wake of the Agricultural Revolution. Theist religions began to argue that the universe is not a parliament of beings, but rather a theocracy ruled by a group of great gods – or perhaps by a single capital “G” God (“Theos” in Greek).

page 93

Today in Nepal, devotees of the goddess Gadhimai celebrate her festival every five years in the village of Bariyapur. A record was set in 2009 when 250,000 animals were sacrificed to the goddess. A local driver explained to a visiting British journalist that “If we want anything, and we come here with an offering to the goddess, within five years all our dreams will be fulfilled.”