

Chemical Happiness and the Meaning of Life

Yuval Noah Harari

Introduction

3 years

(Yuval Noah Harari was born on 24 February 1976. He belongs to a secular Jewish family of Eastern European origin. He studied history from the Hebrew University of Jerusalem with a special focus on medieval and military history. After having completed his DPhil from Jesus College Oxford, he is employed as a professor of History at the Hebrew University of Jerusalem. Besides, he offers a free online course in English titled *A Brief History of Humankind*, which is hugely popular in the internet. Since the Oxford days, Harari has been a practitioner of Vipassana Yoga, a Buddhist meditative practice. He lives with his gay partner-cum-manager, Itzik Yahav in a village near Jerusalem.)

(Investigating the relationship between history and biology, the essential difference between Homo sapiens and other animals, the meaning of human happiness and rights, Harari's first work *Sapiens: A Brief History of Human Kind* was a sweeping history of humanity from the Stone Age upto the political and technological revolutions of the twenty first century. Published in Hebrew in 2011, the work has been translated into thirty foreign languages including English and became an international bestseller since 2014. In his new book, *Homo Deus: A Brief History of Tomorrow*, he switches his gaze from our past to our future, and arrives at some unsettling conclusions.) According to Harari, a bad scenario emerging in the near future is a world in which a superhuman elite strides away from what we have always thought of as binding us together, while a vast "useless class" languishes below, at the mercy of their new robot overlords. In his view, we are not thinking hard enough about this danger, sated as we are with other manifestations of change. "Modernity is a deal," he writes. "The entire contract can be summarised in a single phrase: humans agree to give up meaning in exchange for power."

Harari won numerous accolades including the Polonsky Prize for "Creativity and Originality" which he won twice. In 2015, Mark Zuckerberg, the founder of the facebook, selected *Sapiens* to his online library and described it "a big history narrative of human civilization."

Harari offers a different perspective on many received notions of history, including the relationship between history and biology. (His interest lies in how Homo Sapiens reached the current stage and in predicting its future: "history began with gods, and will end when humans become gods.") His views on human rights that it is a fiction coined by human consciousness and believed by everyone in a group during what he terms the cognitive revolution differ radically from the generally accepted notion. "The dollar, the human rights and the United States of America exist in the shared imagination of billions, and no single individual can threaten their existence. If I alone were to stop believing in the dollar, in human rights, or in the United States, it wouldn't much matter." The present extract is a discourse on the meaning of life, and Harari argues against the traditional spiritual perception, that happiness is the result of chemical processes taking place in the human brain.

Text

Social scientists distribute subjective well-being questionnaires and correlate the results with socio-economic factors such as wealth and political freedom. Biologists use the same questionnaires, but correlate the answers people give them with biochemical and genetic factors. Their findings are shocking.

Biologists hold that our mental and emotional world is governed by biochemical mechanisms shaped by millions of years of evolution. Like all other mental states, our subjective well-being is not determined by external parameters such as salary, social relations or political rights. Rather, it is determined by a complex system of nerves, neurons, ^{gap blow none ends} synapses and various biochemical substances such as serotonin, dopamine and oxytocin.

Nobody is ever made happy by winning the lottery, buying a house, getting a promotion or even finding true love. People are made happy by one thing and one thing only – pleasant ^{feelings} sensations in their bodies. A person who just won the lottery or found new love and jumps from joy is not really reacting to the money or the lover. She is reacting to various hormones ^{fanning flowing} coursing through her bloodstream, and to the storm of electric signals flashing between different parts of her brain.

Unfortunately for all hopes of creating heaven on earth, our internal biochemical system seems to be programmed to keep happiness levels relatively constant. There's no natural selection for happiness as such – a happy hermit's genetic line will go extinct as the genes of a pair of anxious parents get carried on to the next generation. ^{end up none} (Happiness and misery play a role in evolution only to the extent that they encourage or discourage ^{living} survival and reproduction.) Perhaps it's not surprising, then, that evolution has moulded us to be neither too miserable nor too happy. It enables us to enjoy a momentary rush of pleasant sensations, but these never last for ever. Sooner or later they subside and give place to unpleasant sensations. ^{went down}

For example, evolution provided pleasant feelings as rewards to males who spread their genes by having sex with fertile females. If sex were not accompanied by such pleasure, few males would bother. At the same time, evolution made sure that these pleasant feelings quickly subsided. If orgasms were to last forever, the very happy males would die of hunger for lack of interest in food, and would not take the trouble to look for additional fertile females. ^{went down sexual climax}

Some scholars compare human biochemistry to an air-conditioning system that keeps the temperature constant, come heatwave or snowstorm. Events might momentarily change the temperature, but the air-conditioning system always returns the temperature to the same set point. ^{set point of system}

Some air-conditioning systems are set at twenty-five degrees Celsius. Others are set at twenty degrees. Human happiness conditioning systems also differ from person to person. On a scale from one to ten, some people are born with a cheerful biochemical system that allows their mood to swing between levels six and ten, stabilising with time at eight. Such a person is quite happy even if she lives in an alienating big city, loses all her money in a stock-exchange crash and is diagnosed with diabetes. Other people are cursed with a gloomy biochemistry that swings between three and seven and stabilises at five. Such an unhappy

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person remains depressed even if she enjoys the support of a tight-knit community, wins millions in the lottery and is as healthy as an Olympic athlete. Indeed, even if our gloomy friend wins \$50,000,000 in the morning, discovers the cure for both AIDS and cancer by noon, makes peace between Israelis and Palestinians that afternoon, and then in the evening reunites with her long-lost child who disappeared years ago – she would still be incapable of experiencing anything beyond level seven happiness. Her brain is simply not built for exhilaration, come what may.

Think for a moment of your family and friends. You know some people who remain relatively joyful, no matter what befalls them. And then there are those who are always disgruntled, no matter what gifts the world lays at their feet. We tend to believe that if we could just change our workplace, get married, finish writing that novel, buy a new car or repay the mortgage, we would be on top of the world. Yet when we get what we desire we don't seem to be any happier.

Buying cars and writing novels do not change our biochemistry. They can ^{surprise} startle it for a fleeting moment, but it is soon back to its set point.

How can this be ^{explained} squared with the above-mentioned psychological and sociological findings that, for example, married people are happier on average than singles?

First, these findings are correlations – the direction of causation may be the opposite of what some researchers have assumed. It is true that married people are happier than singles and divorcees, but that does not necessarily mean that marriage produces happiness. It could be that happiness causes marriage. Or more correctly, that serotonin, dopamine and oxytocin bring about and maintain a marriage. People who are born with a cheerful biochemistry are generally happy and content. Such people are more attractive spouses, and consequently they have a greater chance of getting married. They are also less likely to divorce, because it is far easier to live with a happy and content spouse than with a depressed and dissatisfied one. Consequently, it's true that married people are happier on average than singles, but a single woman prone to gloom because of her biochemistry would not necessarily become happier if she were to hook up with a husband.

In addition, most biologists are not ^{obsessive} fanatics. They maintain that happiness is determined mainly by biochemistry, but they agree that psychological and sociological factors also have their place. Our mental air-conditioning system has some freedom of movement within predetermined borders. It is almost impossible to exceed the upper and lower emotional boundaries, but marriage and divorce can have an impact in the area between the two. Somebody born with an average of level five happiness would never dance wildly in the streets. But a good marriage should enable her to enjoy level seven from time to time, and to avoid the despondency of level three.

If we accept the biological approach to happiness, then history turns out to be of minor importance, since most ^{environmental} historical events have had no impact on our biochemistry. History can change the external stimuli that cause serotonin to be ^{produced} secreted, yet it does not change the resulting serotonin levels, and hence it cannot make people happier.

Compare a medieval French peasant to a modern Parisian banker. The peasant lived in an unheated mud hut overlooking the local pigsty, while the banker goes home to a splendid

penthouse with all the latest technological gadgets and a view to the Champs-Élysées. Intuitively, we would expect the banker to be much happier than the peasant. However, mud huts, penthouses and the Champs-Élysées don't really determine our mood. Serotonin does. When the medieval peasant completed the construction of his mud hut, his brain neurons secreted serotonin, bringing it up to level X. When in 2014 the banker made the last payment on his wonderful penthouse, brain neurons secreted a similar amount of serotonin, bringing it up to a similar level X. It makes no difference to the brain that the penthouse is far more comfortable than the mud hut. The only thing that matters is that at present the level of serotonin is X. Consequently the banker would not be one iota happier than his great-great-great-grandfather, the poor medieval peasant.

This is true not only of private lives, but also of great collective events. Take, for example, the French Revolution. The revolutionaries were busy: they executed the king, gave lands to the peasants, declared the rights of man, abolished noble privileges and waged war against the whole of Europe. Yet none of that changed French biochemistry. Consequently, despite all the political, social, ideological and economic upheavals brought about by the revolution, its impact on French happiness was small. Those who won a cheerful biochemistry in the genetic lottery were just as happy before the revolution as after. Those with a gloomy biochemistry complained about Robespierre and Napoleon with the same bitterness with which they earlier complained about Louis XVI and Marie Antoinette. King & queen during French Revolution

If so, what good was the French Revolution? If people did not become any happier, then what was the point of all that chaos, fear, blood and war? Biologists would never have stormed the Bastille. People think that this political revolution or that social reform will make them happy, but their biochemistry tricks them time and again.

There is only one historical development that has real significance. Today, when we finally realise that the keys to happiness are in the hands of our biochemical system, we can stop wasting our time on politics and social reforms, putsches and ideologies, and focus instead on the only thing that can make us truly happy: manipulating our biochemistry. If we invest billions in understanding our brain chemistry and developing appropriate treatments, we can make people far happier than ever before, without any need of revolutions. Prozac, for example, does not change regimes, but by raising serotonin levels it lifts people out of their depression.

Nothing captures the biological argument better than the famous New Age slogan: 'Happiness Begins Within'. Money, social status, plastic surgery, beautiful houses, powerful positions – none of these will bring you happiness. Lasting happiness comes only from serotonin, dopamine and oxytocin.

In Aldous Huxley's dystopian novel Brave New World, published in 1932 at the height of the Great Depression, happiness is the supreme value and psychiatric drugs replace the police and the ballot as the foundation of politics. Each day, each person takes a dose of 'soma', a synthetic drug which makes people happy without harming their productivity and efficiency. The World State that governs the entire globe is never threatened by wars, revolutions, strikes or demonstrations, because all people are supremely content with their current conditions, whatever they may be. Huxley's vision of the future is far more troubling than George Orwell's Nineteen Eighty-Four. Huxley's world seems monstrous to most readers,

but it is hard to explain why. Everybody is happy all the time - what could be wrong with that?

Huxley's disconcerting world is based on the biological assumption that happiness equals pleasure. To be happy is no more and no less than experiencing pleasant bodily sensations. Since our biochemistry limits the volume and duration of these sensations, the only way to make people experience a high level of happiness over an extended period of time is to manipulate their biochemical system.

But that definition of happiness is contested by some scholars. In a famous study, Daniel Kahneman, winner of the Nobel Prize in economics, asked people to recount a typical work day, going through it episode by episode and evaluating how much they enjoyed or disliked each moment. He discovered what seems to be a paradox in most people's view of their lives. Take the work involved in raising a child. Kahneman found that when counting moments of joy and moments of drudgery, bringing up a child turns out to be a rather unpleasant affair. It consists largely of changing nappies, washing dishes and dealing with temper tantrums, which nobody likes to do. Yet most parents declare that their children are their chief source of happiness. Does it mean that people don't really know what's good for them?

That's one option. Another is that the findings demonstrate that happiness is not the surplus of pleasant over unpleasant moments. Rather, happiness consists in seeing one's life in its entirety as meaningful and worthwhile. There is an important cognitive and ethical component to happiness. Our values make all the difference to whether we see ourselves as 'miserable slaves to a baby dictator' or as 'lovingly nurturing a new life.' As Nietzsche put it, if you have a why to live, you can bear almost any how. A meaningful life can be extremely satisfying even in the midst of hardship, whereas a meaningless life is a terrible ordeal no matter how comfortable it is.

Though people in all cultures and eras have felt the same type of pleasures and pains, the meaning they have ascribed to their experiences has probably varied widely. If so, the history of happiness might have been far more turbulent than biologists imagine. It's a conclusion that does not necessarily favour modernity.

Assessing life minute by minute, medieval people certainly had it rough. However, if they believed the promise of everlasting bliss in the afterlife, they may well have viewed their lives as far more meaningful and worthwhile than modern secular people, who in the long term can expect nothing but complete and meaningless oblivion. Asked 'Are you satisfied with your life as a whole?', people in the Middle Ages might have scored quite highly in a subjective well-being questionnaire.

So our medieval ancestors were happy because they found meaning to life in collective delusions about the afterlife? Yes. As long as nobody punctured their fantasies, why shouldn't they? As far as we can tell, from a purely scientific viewpoint, human life has absolutely no meaning. Humans are the outcome of blind evolutionary processes that operate without goal or purpose. Our actions are not part of some divine cosmic plan, and if planet Earth were to blow up tomorrow morning, the universe would probably keep going about its business as usual. As far as we can tell at this point, human subjectivity would not be missed.

Hence any meaning that people ascribe to their lives is just a delusion. The other-worldly meanings medieval people found in their lives were no more deluded than the modern humanist, nationalist and capitalist meanings modern people find.

The scientist who says her life is meaningful because she increases the store of human knowledge, the soldier who declares that his life is meaningful because he fights to defend his homeland, and the entrepreneur who finds meaning in building a new company are no less delusional than their medieval counterparts who found meaning in reading scriptures, going on a crusade or building a new cathedral.

So perhaps happiness is synchronising one's personal delusions of meaning with the prevailing collective delusions. As long as my personal narrative is in line with the narratives of the people around me, I can convince myself that my life is meaningful, and find happiness in that conviction.

This is quite a depressing conclusion. Does happiness really depend on self-delusion?

Glossary

Serotonin	:	A chemical produced by the nerve cells, mostly found in the digestive system. Lower serotonin levels often result in mood disorders.
Dopamine	:	A neurotransmitter, an organic chemical, that helps control the brain's reward and pleasure centres.
Oxytocin	:	A peptide hormone, often called "the love hormone", playing a major role in social bonding and sexual reproduction.
Snowstorm	:	A heavy fall of snow, especially with a high wind.
Disgruntled	:	Dissatisfied and angry.
Correlation	:	A mutual relationship or connection between two or more things.
Despondency	:	Dejection.
Secreted	:	Produced or discharged.
Fanatic	:	A person filled with excessive and single-minded zeal, especially for an extreme religious or political cause.
Penthouse	:	A flat on the top floor of a tall building, typically one that is luxuriously fitted.
Champs-Élysées	:	One of the most famous streets of Paris, famous for its theatres, cafes, and luxury shops. It is the final venue of Tour de France cycle race.
Robespierre	:	Maximilien Robespierre (1758-1794). <u>He was a French lawyer and politician, infamous for the Reign of Terror that followed the Revolution.</u>
Napoleon	:	Napoleon Bonaparte or Napoleon I (1769-1821). He was a French military and political leader who rose to prominence during the French Revolution and became the Emperor of the French 1804 – 1814 and a hundred days in 1815.
Louis XVI	:	Louis Auguste (1754-1793) The last King of France before the Revolution and was considered responsible for the financial debacle that produced it. He was guillotined in 1793.
Marie Antoinette	:	The wife of Louis XVI and thus the last queen of France, who was infamous for her promiscuous and luxurious ways of life and was finally guillotined in 1793.
Bastille	:	A fortress in Paris, stormed in by a crowd on 14 July 1789 and

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		destroyed consequently. It is considered as a landmark event in the French Revolution.
Putsch	:	A coup or a violent attempt to overthrow a government.
Ideology	:	An important term in Marxist cultural theory, referring to a system of ideas or ideals, especially one which forms the basis of economic or political theory.
Prozac	:	Fluoxetine, an anti-depressant prescribed for people who are suffering from anxiety, depression or panic.
Aldous Huxley	:	An English writer, novelist and philosopher of the twentieth century, famous for novels like <i>Brave New World</i> and <i>The Doors of Perception</i> .
<i>Brave New World</i>	:	A futuristic dystopian novel set in AD 2540, written in 1931 by Aldous Huxley, and published in 1932.
Dystopian	:	Referring to an imagined place or state in which everything is unpleasant or bad, typically a totalitarian or environmentally degraded one. It is the opposite of Utopian which is a place of ideal order.
Great depression	:	The worst economic downturn in the history of the industrialized world, especially the United States, between 1929 and 1939.
George Orwell	:	A very popular British novelist, essay writer and critic lived in the twentieth century. His real name was Eric Arthur Blair. Two of his most famous novels are <i>Animal Farm</i> and <i>Nineteen Eighty Four</i> .
<i>Nineteen Eighty Four</i>	:	A widely popular political and dystopian novel about totalitarianism and secret surveillance, published in 1949, by George Orwell.
Monstrous	:	Inhumanly evil or wrong.
Disconcerting	:	Causing one to feel unsettled.
Daniel Kahneman	:	An Israeli-American psychologist, the author of the bestseller <i>Thinking Fast and Slow</i> and the winner of the Nobel prize in Economic Studies in 2002.
Cognitive	:	Relating to the process of acquiring knowledge and understanding through thought.
Ethical	:	Relating to moral principles.
Nietzsche	:	Friedrich Wilhelm Nietzsche (1844-1900). He was a German philosopher, cultural critic, poet and philologist who famously declared "God is Dead" in <i>Thus Spoke Zarathustra</i> .
Ordeal	:	A very unpleasant or prolonged experience.
Oblivion	:	The state of being unaware or unconscious of what is happening around one.
Collective delusions	:	Mass hysteria or the transmission of fear and threats in a society in the form of rumours and fear.
Synchronizing	:	Causing to happen at the same time.

Exercises

I. Answer the following questions:

1. From which work is the extract "Chemical Happiness and the Meaning of Life" taken?

- | | |
|---------------------------|---------------------|
| a. <i>The Web of Life</i> | b. <i>Homo Deus</i> |
| c. <i>Homo Sapiens</i> | d. None of These |

2. Whose novel is *The Brave New World*?

- a. Aldous Huxley
- b. George Orwell
- c. James Joyce
- d. None of These

3. Who was the author of *Nineteen Eighty Four*? *George Orwell*

4. Robespierre and Napoleon came to power after which revolution? *French revolution*

5. In which subject did Daniel Kahneman win the Nobel Prize? *Economics*

II. Answer the following questions in a sentence or two:

1. What is the methodology followed by Harari in the prescribed extract? *Argument*

2. What is Harari's observation of human happiness? *result of chemical process*

3. Why does a person who has just won a lottery jump with joy? *reaction of hormones*

4. What is Harari's reaction to the statement that married people are happier on average than singles? *serotonin, dopamine, oxytocin*

5. How does Prozac lift people out of depression?

6. What all, according to Harari, does lasting happiness come from?

7. What, according to Harari, is Huxley's perception of happiness?

8. What lesson does Harari prove by comparing a medieval French peasant to a modern Parisian banker?

9. What are Harari's observations about the French revolution?

10. What does Aldous Huxley speak of happiness in *Brave New World*?

11. What is the paradox about happiness that Daniel Kahneman explains?

12. Why is it said that any meaning that people ascribe to their lives is just a delusion?

III. Answer the following questions in a paragraph:

1. Explain Chemical happiness with examples.

2. The medieval man and modern man is essentially the same in the scale of happiness. Argue.

3. What constitutes meaning in one's life?

4. The relation between human happiness and self-delusion.

IV. Answer the following questions in about 300 words:

1. "The Meaning of Life" is a critique of the present perception about human happiness. Discuss.

2. How does Yuval Harari define meaning of human life and basic human rights?

Activity

1. Read the book *Homo Deus* written by Harari, as a sequel to *Homo Sapiens*, and listen to his speeches, available in various internet sources. Arrange a discussion on how he philosophically defines human happiness, history and human rights.

2. Watch Roberto Benigni's *Life Is Beautiful* (1997) and Marc Forster's *The Kite Runner* (2007). Discuss the movies in the context of Harari's notions of chemical happiness. Evaluate the movies in the light of man's search for meaning and Harari's controversial explanation of the same as self-delusion.